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MANEUVER WARFARE AND THE US NAVY'S NEW STRATEGIC CONCEPT

by

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This thesis examines the extent to which modern maneuver warfare theory is relevant to naval warfare and the US Navy's new strategic concept. This question is important because Naval Doctrine Command, established to translate the strategic vision of "...From The Sea" into doctrinal reality, seized upon the concept of maneuver warfare in *Naval Warfare* (Naval Doctrine Publication One) as the most appropriate war fighting style for the naval services. Modern maneuver warfare theory was developed from land warfare experience to solve specific problems of that warfare medium. The current body of literature treating the adoption of maneuver warfare by the naval services does not address the question of its relevance at sea or in the littoral. This thesis develops a framework for determining the relevance of maneuver warfare to the naval services by defining the concept and describing its essential elements. It then examines why the US Army and Marine Corps adopted maneuver warfare in the nineteen-eighties. The thesis concludes that the littoral arena makes the adoption of maneuver warfare for the naval services relevant and necessary.

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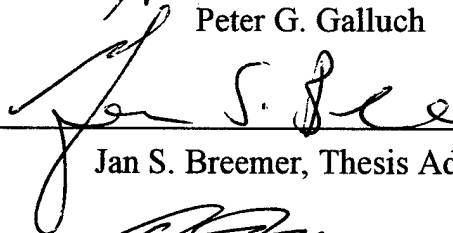
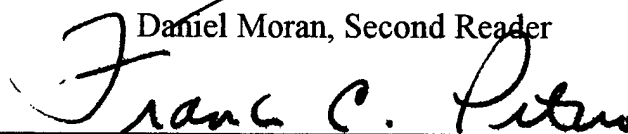from the

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ABSTRACT

This thesis examines the extent to which modern maneuver warfare theory is relevant to naval warfare and the US Navy's new strategic concept. This question is important because Naval Doctrine Command, established to translate the strategic vision of "...From The Sea" into doctrinal reality, seized upon the concept of maneuver warfare in *Naval Warfare* (Naval Doctrine Publication One) as the most appropriate war fighting style for the naval services. Modern maneuver warfare theory was developed from land warfare experience to solve specific problems of that warfare medium. The current body of literature treating the adoption of maneuver warfare by the naval services does not address the question of its relevance at sea or in the littoral. This thesis develops a framework for determining the relevance of maneuver warfare to the naval services by defining the concept and describing its essential elements. It then examines why the US Army and Marine Corps adopted maneuver warfare in the nineteen-eighties. The thesis concludes that the littoral arena makes the adoption of maneuver warfare for the naval services relevant and necessary.

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I. INTRODUCTION

A.   GENERAL OVERVIEW

The United States Navy is in the midst of a period of major innovation. As the result

of major changes in the international security environment, it is changing its traditional

strategic focus and doctrine from the concepts of the "Maritime Strategy" to those of

"Forward... From The Sea." This shift matches Stephen Rosen's definition of a major

innovation as one that includes:

> ...a change in the concepts of operations of [a] combat arm, that is the
> ideas governing the way it uses its forces to win a campaign, as opposed to
> tactical innovation which is a change in the way individual weapons are
> applied to the target and environment in battle. A major innovation also
> involves a change in the relation of that combat arm to other combat arms and
> a downgrading or abandoning of older concepts of operations and possibly of
> a formerly dominant weapon[1].

At first glance, the debate surrounding this innovation resembles that of the period

towards the end of the Second World War when Bernard Brodie observed:

> We live in a time when basic theories of naval warfare are being
> rejected out of hand by responsible officers on the wholly unwarranted
> assumption that they do not fit modern conditions.[2]

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[1]Rosen, Stephen Peter. Winning The Next War: Innovation and the Modern Military.
(Ithaca and London: Cornell University Press, 1991) 7-8.

[2]Brodie, Bernard. A Guide to Naval Strategy. (Princeton: Princeton University Press,
1944) 12.

The similarity in resemblance between the present debate and the one at the end of the Second World War is purely superficial. "Modern conditions" of today's security environment are entirely different. Basic theories of naval warfare, and other warfare media, are rightly being scrutinized.

In 1992 Colin Gray, reaffirming "traditional" theories of sea power, said in <u>The Leverage of Sea power: The Strategic Advantage of Navies in War</u>, that:

> Experience has shown that reports of the strategic demise or even obsolescence of sea power have been greatly exaggerated. Sea power in this century has co-opted or otherwise neutralized every takeover challenge that has appeared.[3]

The US Navy does not believe that sea power *per se* is obsolete. However, the new strategic focus of the US Navy explicitly rejects traditional "blue water" theories of naval warfare as overtaken by events, while it attempts to co-opt aspects of warfare in other physical media. In contrast with Brodie's view fifty years ago, the present debate is not "wholly unwarranted."

A major part of the US Navy's reaction to the present security environment has been an attempt to adapt the concept of "maneuver warfare" to seagoing forces. Most of the literature on the subject is derived from and focuses on ground combat. What little discussion exists with respect to naval warfare has been borrowed lock-stock-and barrel from

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[3]Gray, Colin S. <u>The Leverage of Sea power: The Strategic Advantage of Navies in War</u>. (New York: The Free Press, 1992) 263.

concepts of maneuver warfare on land with little or no discussion whether those concepts are relevant to the operations of seagoing forces.

In describing maneuver warfare in Naval Doctrine Publication 1: Naval Warfare, Naval Doctrine Command calls it "...the preferable and more effective - albeit more difficult to master - fighting style."[4] The role of doctrine has always been a contentious issue among naval officers ever since the Royal Navy's Permanent Fighting Instructions which were frequently seen as having stifled initiative and the ability to fight decisive battles.[5]

This long held skeptical view of "doctrine" among professional naval officers has led the US Naval Doctrine Command to tread lightly, and emphasize that doctrine is not "directive" but "...form[s] a bridge between the naval component of our nation's military strategy and our tactics, techniques and procedures, such as those found in our Naval Warfare Publications and Fleet Marine Force Manuals."[6]

The U.S. Navy's Naval Doctrine Command was created to translate the "vision" "...From the Sea" into doctrinal reality. Specifically, it was tasked to "...close the gap between the air-land battle and amphibious warfare,...translate 'operational maneuver from the sea' into naval doctrine , and above all...build doctrine for expeditionary warfare."[7] This

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[4]Naval Doctrine Publication 1: Naval Warfare. (Washington DC: US Government Printing Office [US GPO], 28 March 1994) 33.

[5]Hughes, Wayne P. Fleet Tactics: Theory and Practice. (Annapolis, MD: Naval Institute Press, 1986) 48-49.

[6]Naval Warfare. ii.

[7]"...From The Sea: Preparing the Naval Service for the 21st Century." (Washington DC:
(continued...)

was intended to be an interim step. The next step will presumably be to translate doctrine

into practical applications for deployed forces. The Naval Doctrine Command's

determination that maneuver warfare is the "preferred" way of war for the US Navy must be

examined. This thesis will seek to answer the important, but previously unasked, question

"To what extent are land warfare concepts of maneuver warfare relevant to naval warfare?"

B.   THE US NAVY'S CHANGING STRATEGIC FOCUS

NDP 1 was intended to be the first of six publications which give substance to the

Navy's new strategic concept : "...From the Sea."[8] This concept articulated the changed

orientation of the U.S. naval services away from their traditional focus on command of the

sea. US Navy Captain Edward A. Smith wrote a detailed explanation of how and why

"...From The Sea." evolved as a concept. He first described two underlying assumptions he

claimed have not changed with the end of the Cold War:

> [1] naval forces would continue to be charged with the defense of American
> territory, lives, and property, and ...

> [2] the United States would continue to exercise a leadership role in the
> world[9].

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[7](...continued)
   US GPO, 1991) 12.

[8]Naval Warfare. iv.

[9]Smith, Edward A. "What '...From the Sea' Didn't Say". Naval War College Review
XLVIII, no 1 (Winter 1995) 11.

Three important events or conditions have changed the US Navy's view of its role in the security environment: (1) the end of the Cold War, (2) Desert Storm, and (3) rapid technological change. The end of the Cold War has two related effects. First, the fall of the Soviet Union removed the US Navy's only global threat capable of challenging its command of the seas. According to Frank Uhlig, "Now, although almost every country has a navy, there is only one big capable navy - [the US Navy]."[10] Next, the American victory in the Cold War has forced changes in the uses and usefulness of its naval forces. According to one author: "...no nation on earth can challenge [the US Navy] in the foreseeable future; [its] traditional concept of war at sea has become irrelevant."[11]

The United States and its navy are faced neither by peer competitors , nor permanent enemies. This does not mean that it expects an end to crises. Nevertheless, "...given the inability to forecast future crises accurately, ... the naval service could not hope to plan forces or capabilities on the basis of any limited geographic concerns either now or (especially) over the long term."[12] Lack of a specific enemy requires a broader focus on potential threats for naval forces.

It was one of those crises, arising unexpectedly in 1990, that was the second major event that prompted the US Navy to seize upon the concept of maneuver warfare. Colin S. Gray said that Desert Shield and Desert Storm "... demonstrated that the need for a maritime

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[10]Uhlig, Frank. "On, Over, Under, and From the Sea." Proceedings. (May 1995) 112.

[11]Toti, William J. "Sea-Air-Land Battle Doctrine." Proceedings. (September 1992) 70.

[12]Smith 17.

basis to U.S. power projection is mandated by an enduring strategic geography and has not evaporated with the demise of the Cold War."[13] However, former Vice Chairman of the Joint Chiefs of Staff, Admiral Owens, found little encouragement in such words:

> Desert Storm, the first post-Cold War conflict was a magnificent battle - and a doctrinal disaster for the U.S. Navy. Our naval forces performed well. There was no failure on the part of the men and women who fought there. Desert Storm was a triumph of American military power and all the military services contributed to that triumph. The Navy was successful, however, largely because it was able to modify its operational doctrine that - along with the weapons, systems, and training it generated proved ill suited to the Gulf War[14]

Owens said that, by contrast, the US Army and Air Force doctrines were correct. Developed to counter the Soviets in Europe, the Airland Battle doctrine was successfully applied to the Soviet trained and styled Iraqi Army. The US Navy's plan for fighting the Soviets, the Maritime Strategy, was not suited to the war with Iraq. Owens says that strategy gave the Navy an incorrect view of what war would be like, and left it ill prepared with the wrong weapons, command and control system, tactics, and concept of operations. Specifically, the Maritime Strategy envisioned a battle against Soviet naval and air forces in the vast, deep ocean areas. A premium was placed on fighting at a long distance, before the enemy closed to weapons release range. None of these conditions was present in the war

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[13]Gray, Colin S. The Navy in the Post-Cold War World. (University Park Pennsylvania: The Pennsylvania State University Press, 1994) 7.

[14]Owens, William A. High Seas: The Naval Passage to An Uncharted World. (Annapolis, MD: Naval Institute Press, 1995) 4.

with Iraq. That Gulf War for the Navy, according to Owens, became the "...midwife of change."[15]

The third major factor impacting the US Navy is the "... accelerating pace of technological change."[16] Through immense increases in range, accuracy, deadliness, and versatility, technology is blurring the already largely artificial boundaries between warfare media - land, sea, and air. These and other changes are commonly referred to as a "Revolution in Military Affairs (RMA)."

There is a growing body of RMA related "literature". The consensus definition of the concept is that an RMA consists of a military technological revolution plus a changed doctrine or organization to most effectively use the technical revolution[17]. There are three broad views about the present period. Not everyone agrees that the world stands on the brink of an RMA. Some argue that the world is in a period of evolutionary change. Ranges and other measures of performance for weapons and systems are increasing but these alone do

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[15]Owens 4.

[16]Smith 11.

[17]Fitzsimonds, James R. and Van Tol, Jan M. "Revolutions in Military Affairs." Joint Force Quarterly. (Spring 1994). 25-26.
- Krepenivich, Andrew F. "Cavalry to Computer: The Pattern of Military Revolutions." The National Interest, no 37. (Fall 1994). 30.
- Marshall, Andrew W. "Testimony Before the Subcommittee on Acquisition and Technology, Senate Armed Services Committee." (5 May 1994). 1.
- Vickers, Michael G. "The Emergence of Multidimensional Warfare." (Lecture, United States Military Academy, West Point, 26 September 1994). 1.

not constitute a revolution [18]. Another school of thought is that the real revolution has nothing to do with technology as such; the "real" revolution consists of the diminishing role of the state as the sole possessor of the legitimacy to use force. This school believes the nation - state is declining and the growth of subnational and supranational threats like terrorism, drugs, and AIDS are changing the nature of warfare.[19]

While the framers of "...From The Sea" do not explicitly state which side of the argument they are on, they do not minimize the importance of the impact of technology on the security environment either. According to Smith, "the problems posed by the accelerating pace of technological change were the subject of much discussion...."[20] A main problem was seen as civilian technology advancing faster than military technology, thereby threatening to make US naval systems obsolete, or causing the US to be surprised. "From this perspective, then, a permanent state of accelerating technological change confronted military planners with the dual problem of how to maintain sufficient flexibility in both hardware and the acquisition process to take advantage of 'off the shelf' civilian technology as it became available, and of how to deal with opponents who could do like wise."[21]

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[18]Galdi, Theodore. Revolution in Military Affairs? Competing Concepts, Organizational Responses, Outstanding Issues. (Washington DC: Congressional Research Service). (30 November 1990). 8-9.

[19]Builder, Carl H. "Looking In All the Wrong Places? The Real Revolution in Military Affairs is Staring Us in the Face." Armed Forces Journal International. (May 1995) 38-39.

[20]Smith 18.

[21]Smith 18.

Former Commandant of the Marine Corps General Mundy says technology complicates the inherent problems of fighting in the littorals: "Complicating the situation will be the fact that the naval expeditionary task force will be spread from far out to sea to well inland, conducting multi-modal warfare against diverse threats."[22]

Also, James Tritten, of Naval Doctrine Command, who has done much to encourage the adoption of maneuver warfare by the US Navy, believes that due to advanced technologies, "...simultaneous and decisive warfare of annihilation against the depth of an enemy's battle space is possible in today's environment."[23]

It is also true that not everyone agrees that the US Navy is undergoing a significant change in focus. For example, LT Shawn D. James claims that "...the elements of naval strategy over the past 40 years have changed only in their collective title."[24] Supporters of this school of thought say that the navies always have been oriented towards influencing some event on land. The reason the US Navy can devote direct effort to influencing land events now is because the primary reason for the existence of a fleet, to gain command of the sea, has been accomplished. According to this school, the situation Brodie described in 1944 has changed very little:

> The conventional division of the globe into land and marine areas,
> controlled respectively by land and naval forces, has always been highly
> arbitrary. The fact that war at sea calls for different techniques than war on

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[22]Mundy, Carl E, Jr. "Getting it Right '...From the Sea'." Proceedings. (January 1944) 71.

[23]Tritten, James J. "Maneuver Warfare At Sea." Proceedings. (September 1995) 53.

[24]James, Shawn D. "...From The Bottom of the Sea". Proceedings. (June 1994) 26.

land tends to obscure the more fundamental truth that naval operations are important primarily because of their influence on land campaigns, and conversely, that many great land campaigns are carried through chiefly to secure an advantage in the war at sea. Moreover, there are large and important areas in which operations ashore and afloat, are associated in the most intimate manner.[25]

"Traditionalists," for example Colin Gray, maintain that navies can do six things strategically: cause financial exhaustion, blockade, conduct peripheral raids, attack overseas possession and allies, gain continental allies, and eventually make "continental" commitments similar to the allied invasion of Normandy.[26] The last action is what the US Navy is concentrating on now. They acknowledge that naval power, by itself, can rarely, if ever, win a war; its actions <u>enable</u> victory. Again, to quote Gray:

> Navies fight at sea only for the strategic effect they can assure ashore, where people live. Sea battles, naval tactics, and ship design, are all means, and only means, to the gaining of strategic leverage in a conflict as a whole.[27]

Another maritime author, Frank Uhlig Jr., agrees with Gray's and Brodie's traditional view of sea power. He writes that come war, navies provide three basic "goods and services:"

[1] ...ensure first that friendly shipping can flow....

[2] ...and second that hostile shipping cannot....

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[25]Brodie 170.

[26]Gray. <u>Leverage</u>. chp 2.

[27]Gray. <u>Leverage</u>. 1.

[3] ...then if it is necessary or desirable, navies can risk landing an army on a hostile shore, and supporting it then and thereafter with fire and logistics.[28]

The "traditionalists" minimize the profoundness of the change in the US Navy's strategic focus. Gray's quote only addresses the strategic level of naval "leverage." Uhlig's is too limited to describe what the Navy intends to do in future conflicts. The US Navy's new strategic focus goes far beyond recognition that the change in the security environment allows more effort to be expended influencing land events. "...From The Sea" signifies that the US Navy intends to directly influence the land battle. This is to occur at all levels of war, not just at the strategic level. It intends to do much more than simply transport and land troops, supply them ashore, and perhaps provide fire support if needed.

According to Jan S. Breemer, the US Navy "...is about to go through the most fundamental top-down revolution since the birth of the 'new navy' one hundred years ago."[29] And, he adds, "...never before has a major navy relegated sea control and the preparation for the next 'big' war at sea to be a secondary consideration."[30]

The Department of the Navy explained this shift in a 1994 white paper, "Forward...From The Sea." It said: "Naval Forces have five fundamental and enduring roles in support of the National Security Strategy: projection of power from sea to land, sea control and maritime supremacy, strategic deterrence, strategic sea lift, and forward naval

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[28]Uhlig 112.

[29]Breemer, Jan S. "The End of Naval Strategy: Revolutionary change and the Future of American Naval Power. Strategic Review. (Spring 1994) 41.

[30]Breemer 44.

presence."[31] This order is not accidental. The primary role is projection of power from sea
to land.

The shift in emphasis is further demonstrated in the same document when it explains
the role of the naval services in conflict:.

> Finally, if deterrence fails during a crisis and conflict erupts, naval
> forces provide the means for immediate sea-based reaction. This could
> include forcible entry and providing the protective cover essential to enabling
> the flow of follow on forces which will be deployed, supported, and sustained
> from the continental United States.[32]

This statement is as important for what it does not say, as it is for what it does,
namely that future "enablement" from the sea will not be by way of a sequential strategic
offensive eventually leading to landing of troops. Instead, the naval services will
immediately and directly become active in a land conflict, including at the operational level
of war.

Breemer's belief in the revolutionary character of the US Navy's change is shared by
Owens:

> "...From The Sea" reorientates the primary focus of U.S. naval forces
> from sea control to land control. Affecting events on land is not a new
> concern of naval forces. But in concert with the Marines (or mobile Army
> units) the navy's new operational concept goes far beyond the traditional
> notion of power projection to a broader concept, better understood as

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[31]Dalton, John H., Boorda, Jeremy M., and Mundy, Carl E. Jr. "Forward...From The
Sea." Proceedings. (December 1994) 49.

[32]Dalton 47.

battlefield dominance...But the new operational concept argues that the primary purpose of U.S. naval power in conflict is now to help bring a desired outcome on the land, directly, and that the primary opposition the United States will face in doing this will be an opponent's ground force.[33]

C.   ATTRITION AND MANEUVER WARFARE

The US Navy's revolutionary change in strategic focus toward direct control of the enemy landmass and enemy ground-based capabilities has prompted the US Navy to investigate the concept of maneuver warfare. The Naval Doctrine Command views maneuver warfare as a distinct form of warfare. Its antithesis, it claims, is "attrition" warfare. According to Naval Doctrine Command, "Maneuver warfare is a philosophy, rather than a formula - an approach rather than a recipe...[and] is further characterized by adaptability and is not limited to a particular environment...and emphasizes the indirect approach - not merely in terms of mobility and spatial movement, but also in terms of time and our ability to take action in before the enemy can counter us."[34] Its contrast is "...attrition warfare - the wearing down of an enemy...."[35]

Since this definition is vague and because Naval Doctrine Command calls maneuver warfare "...the preferable and more effective - albeit more difficult to master - fighting style...,"[36] a few naval writers have attempted to develop or operationalize this concept. Mundy defines the concept as the ability to "...project credible, sustainable power directly

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[33]Owens 78-79.

[34]Naval Warfare 33.

[35]Naval Warfare 33.

[36]Naval Warfare 33.

against a foes' center of gravity."[37] Pierce says maneuver warfare attempts to "...collapse the enemy's will to fight ...[and] ...shatter his cohesion..."[38] He also states that it "...emphasizes non-linear tactics and decentralized command and control."[39] Tritten says "Maneuver warfare planning must create opportunities to defeat enemy forces at sea by creating times and places where our own forces have the decisive edge."[40] He also states that maneuver warfare is,

> ...more art than science, [it] is about planning and executing skillful operations or combat actions that depend on mental agility rather than simply the application of brute force. Manoeuvre warfare doctrine creates favorable conditions for combat actions at sea in which one strives for the greatest possible return for the effort expended.[41]

Still another writer describes the purpose of maneuver warfare as "...to defeat the enemy by disrupting his ability to react, rather than by physical destruction of his forces."[42] He uses the analogy of judo to further describe it:

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[37]Mundy 71.

[38]Pierce, Terry. "Operational Maneuver From The Sea." Proceedings. (August 1944) 30.

[39]Pierce, Terry C. "Maneuver Warfare: From Theory to Practice." Proceedings. (November 1992) 62.

[40]Tritten 54.

[41]Tritten 52.

[42]Lind, William S. Maneuver Warfare Handbook.(Boulder and London: Westview Press, 1985) From "About the Author."

Maneuver warfare can be thought of as military judo. It is a way of fighting smart, out thinking an opponent you may not be able to overpower with brute strength. As such, it offers...the best hope of winning the battles, the campaigns, and wars [U.S. forces] may face in the future.[43]

Besides its vagueness, a major shortcoming in the literature on maneuver warfare is that much of what it says about maneuver warfare at sea is contradictory. For instance, Tritten writes of an "indirect approach," while Mundy's description calls for a direct and sustainable attack on the enemy's center of gravity. Pierce and others stress the need for decentralized command and control, but Owens describes the US Navy's decentralized command and control during Desert Storm as a major doctrinal shock. The existing arrangement, he said, was ill suited for the battle and the environment. Owens' statement also contradicts Naval Doctrine Command's belief that maneuver warfare is "....characterized by adaptability and is not limited to a particular environment."[44]

Another criticism by analysts, like Hughes and Atkeson, is that maneuver warfare supporters seem to call maneuver warfare inherently good and attrition inherently bad. Furthermore, according to them, maneuver warfare advocates label almost all historically successful commanders as practitioners of maneuver warfare.[45]

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[43]Lind 2.

[44]Naval Warfare 33.

[45]Atkeson, Edward B. "Maneuvering Past Maneuver Warfare." Proceedings. (January 1996) 33.
- Hughes, Wayne P. "Naval Maneuver Warfare: An Outline for the Naval Doctrine Command." (3 November 1995) 1.

Robert H. Leonhard has a better developed definition of maneuver and attrition warfare. His study, The Art of Maneuver, criticized the US Army's AirLand Doctrine, however, his definitions of maneuver and attrition warfare are generic and relevant to explaining attrition and maneuver warfare at sea. They are also much more precise than the definitions offered in the naval literature. His definition of attrition warfare is:

> ...That method of fighting wars, campaigns, and battles... in which the friendly force attempts to defeat an enemy through the destruction of the enemy's mass. The key words in this definition are "destruction" and "mass". Attrition theory is a "bottom-up" approach to war because it focuses upon bringing the enemy to battle and then seeks to defeat him in that battle or follow on battles.[46]

He said that, because battles are the key element in attrition theory, operations and strategies are created which attempt to bring the enemy to battle and create a sustainable favorable loss ratio. The enemy is eventually defeated by being physically destroyed at a rate which cannot be sustained.[47]

He contrasts this with his definition of maneuver warfare as the warfare style which:

> ...attempts to defeat the enemy through means other than simple destruction of his mass. Indeed the highest and purist application of maneuver theory is to *preempt the enemy*, that is to disarm or neutralize him before the fight. If such is not possible the maneuver warrior seeks to *dislocate* the enemy forces, i.e. removing the enemy from the decisive point or vice versa, thus rendering them useless and irrelevant to the fight. [If that cannot be accomplished], then the maneuver-warfare practitioner will attempt to *disrupt*

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[46]Leonhard, Robert R. The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle. (Presidio, 1991) 19.

[47]Leonhard 19.

the enemy, i.e., destroy or neutralize his center of gravity, preferably attacking with friendly strengths through enemy weaknesses.[48]

A further difference, according to Leonhard are the different views on the intangibles of warfare that are held by the adherents to the two schools. These intangibles exist in all forms of warfare and include, but are not limited to, such factors as morale and cohesion. According to Leonhard, "If the attrition addict appreciates war's intangibles at all, he sees them only as combat multipliers with which to fight the attrition warfare battle better."[49] Liddell Hart linked war's intangibles closely to his strategy of the "indirect approach." An example of Liddell Hart's belief in the psychological or intangible basis of victory is summed up in his statement that "Helplessness induce[s] hopelessness, and history attests that loss of hope, not loss of lives, is what decides the issue of war."[50] He cites the German surrender in 1918 as a case in point:

> ...In preventing a continuance of the war into 1919, military action ranks foremost. This conclusion does not imply that, at the moment of the Armistice, Germany's military power was broken or her armies decisively beaten, nor that the Armistice was a mistaken concession. Rather does the record of the last "hundred days," when sifted, confirm the immemorial lesson that the true aim of war is the mind of the hostile rulers, not the bodies of their troops, that the balance between victory and defeat turns on mental impressions and only indirectly on physical blows. It was the shock of being surprised, and the feeling that he was powerless to counter strategic moves

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[48]Leonhard 19-20.

[49]Leonhard 19.

[50]Liddell Hart, B. H. Strategy. (New York: Frederick A. Praeger, 1968) 202.

that shook Ludendorff's nerve more than the loss of prisoners, guns, and acreage.[51]

The view of warfare as a choice between attrition and maneuver is not without its critics. Atkeson says that the present experience of the US Navy is similar to the experience of the US Army a decade ago when it was trying to adopt maneuver warfare as a doctrinal concept. He denies the existence of the separate styles of warfare.

> ...Maneuver warfare is supposed to be the opposite of attrition warfare. The former is Good; the latter is Bad....The Army inflated the Good and condemned the Bad, that is, until the laws of physics and common sense caught up with it.[52]

To Atkeson, the laws of physics and common sense reaffirmed that "...fire and maneuver (together with protection - as found in an armored vehicle or by the dispensing of flares by an aircraft avoiding hostile missiles) are inseparable parts of a continuum."[53]

Hughes says that maneuver warfare exists and is "...the viable, practical, concept of operations for U.S. Navy and Marine forces in joint littoral warfare...."[54] However, he says that "...maneuver warfare described as a *unique* style is a perverse product of the Viet Nam War"[55] and that "...maneuver zealots (the military reformers) haven't put Vietnam behind

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[51]Liddell Hart 219.

[52]Atkeson 33.

[53]Atkeson 34.

[54]Hughes. "Naval Maneuver Warfare." 1.

[55]Hughes. "Naval Maneuver Warfare." 1.

them."[56] He continues by stating that the generally accepted antithesis to maneuver, attrition, is a wrong comparison. He believes that mission accomplishment results from "domination" of the enemy.

Domination comes from a combination of destruction, suppression, and demoralization. Attrition is only one method of domination. Destruction, suppression, and demoralization can be accomplished by attriting enemy forces. Hughes uses the phrase "power warfare" interchangeably with "domination." Power warfare, according to Hughes is the correct antithesis to maneuver.[57] However, he goes on to state, that even though the correct antithesis of maneuver is now developed, "...each has its time and place, and pure forms are hard to find...[and]...each can increase our comparative advantage in combat and potential power."[58]

Hughes's dichotomy only exists in theory to provide a comparison to maneuver and to correct what he considers a shortcoming in the theory of maneuver warfare. Practically, to Hughes, the dichotomy does not exist. There is no single good or smart style of fighting applicable to all cases in contrast to a universally bad or stupid style. Maneuver warfare or power warfare, which includes attrition as part of it, can both be correct depending upon the situation.

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[56]Hughes. "Naval Maneuver Warfare." 1.

[57]Hughes. "Naval Maneuver Warfare." 2.

[58]Hughes. "Naval Maneuver Warfare." 3.

Another view on styles of warfare is offered by Russell Weigley. Weigley drew on the German military historian Hans Delbrück, who himself drew on the Prussian philosopher Clausewitz, to come up with the strategy of annihilation and the strategy of attrition.

> ...There are two kinds of military strategy: the strategy of annihilation, which seeks the overthrow of the enemy's power and; and the strategy of attrition, exhaustion, or erosion, which is usually employed by a strategist whose means are not great enough to permit pursuit of the direct overthrow of the enemy and who therefore resorts to an indirect approach.[59]

Weigley's description is unique because it does not hold the indirect approach, commonly adopted by maneuver warfare theorists from Liddell Hart, and the strategy of attrition as mutually exclusive. He too, however, does not support a strict dichotomy of warfare. His example of MacArthur in the Philippines demonstrates this point.

> General MacArthur said that when he met President Roosevelt at Pearl Harbor in July, 1944, he assured the President that losses in the reconquest of the Philippines would not be heavy: "The days of the frontal assault should be over. Modern infantry weapons are too deadly, and frontal assault is only for mediocre commander. Good commanders do not turn in heavy losses." But MacArthur had been able to avoid most frontal assaults in the past because the geography of the Southwest Pacific Area and the weapon of amphibious power afforded him the means to turn rather than storm strong enemy positions. In the Philippines, where land areas were relatively large and, unlike New Guinea, where he was determined to reconquer everything, his fighting had to come down to numerous frontal assaults and the casualties that went with them after all.[60]

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[59]Weigley, Russell F. The American Way of War: A History of United States Military Strategy and Policy. (Bloomington: Indiana State University Press, 1973) xxii.

[60]Weigley 304-305.

In addition to questions about styles of warfare that arose with the US Navy's changing strategic focus, the Naval Doctrine Command Publication One addresses the issue of "levels" of war. It formally recognizes the operational level of war. This recognition is of fundamental importance to land warfare theories of maneuver warfare. The US Army recognized the operational level in its 1982 version of FM 100-5.

D.   LEVELS OF WAR

The United States military recognizes three levels of war: tactical, operational, and strategic. "The levels of war are doctrinal perspectives that clarify the links between strategic objectives and tactical actions."[61]

It is difficult to find a clear cut separation between the levels of war. This is especially true when a conflict is in progress:

> Actions can be defined as strategic, operational, or tactical based on their effect or contribution to achieving strategic, operational, or tactical objectives, but many times the accuracy of these labels can only be determined during historical studies."[62]

The tactical level is "...the planning level of war that deals with battles and engagements."[63] In official joint doctrine, it is "...the employment of units in combat."[64] Combat consists of battles and engagements. "An engagement is usually short in duration

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[61]"Doctrine For Joint Operations." <u>Joint Publication 3-0</u>. (9 September 1993) II-2.

[62]"Doctrine For joint Operations." II-2.

[63]Leonhard 9.

[64] "Doctrine For Joint Operations." II-4.

and fought between small forces[65] Battles "...consist of a set of engagements, ...typically last longer; involve larger forces... and could effect the course of a campaign."[66]

The operational level is "...the planning level of war that constructs campaigns and major operations in order to accomplish theater goals articulated at the strategic planning levels; the intermediate planning level that integrates tactical efforts and events into a campaign."[67] It "...links the tactical employment of forces to strategic objectives."[68]

The strategic level is "...the planning level of war that is responsible for applying military means to achieve national aim; the planning level that develops war plans and theater goals."[69] In Joint Publication 3-0 it is "...the art and science of developing and employing armed forces and other instruments of national power in a synchronized fashion to secure national objectives."[70]

Another vital question arising from Naval Doctrine Command's assignment of "preferred" status to maneuver warfare is at what level of war does maneuver warfare theory apply? Some authors believe the concept applies at all levels of war while others believe it applies only at the strategic or operational levels. It will be argued here that the proper level

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[65]"Doctrine For Joint Operations." II-4.

[66]"Doctrine For Joint Operations." II-4.

[67]Leonhard 8.

[68]"Doctrine For Joint Operations." II-3.

[69]Leonhard 7.

[70]"Doctrine For Joint Operations." II 2-3.

to consider maneuver warfare at sea is the operational level. There are two reasons: first, at the tactical level, the employment of units in combat, firepower plays a predominant role. Commanders attempt to sink ships and submarines, or destroy targets on land usually as part of a larger plan. At the tactical level, the measure of effectiveness is enemy units destroyed or disabled. Secondly, navies have always been maneuver elements at the strategic level. There is a more developed understanding of maneuver at the tactical and strategic levels of naval warfare. Maneuver warfare or elements of it can be shown to "apply" to the tactical level. It also can be shown to form the basis of the use of navies at the strategic level. However, the operational level, which links the other two levels, is where maneuver warfare, as a distinct style of organizing for and fighting wars, is most effectively applied. It also is where the US Navy has the least amount of understanding.

In his classic Fleet Tactics, Hughes states:

> At sea the predominance of attrition over maneuver is a theme so basic that it runs throughout this book. Forces at sea are not broken by encirclement; they are broken by destruction.[71]

This theme indeed comes up repeatedly in his book. For example,

> Naval combat is a force-on-force process tending, in the threat or realization, toward the simultaneous attrition of both sides. To achieve victory one must attack effectively first.[72]

Hughes states that technology is responsible for the domination of firepower at the tactical level. "Maneuver in battle was once the classic definition of tactics...but [now] it is

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[71]Hughes. Fleet Tactics. 27.

[72]Hughes. Fleet Tactics. 147.

an orphan no longer warranting its earlier station."[73] The range and speed of modern

weapons makes tactical maneuver less important according to Hughes. "We know the

situation today: with a potentially huge battlefield and fast-acting weapons, maneuver of

even the most agile ships appears to be carried out at a snails pace."[74] This has led Hughes to

the conclusion that "...at sea the essence of *tactical* success has been the first application of

offensive force."[75]

Rear Admiral Ya'ari, former Director of Israel's Naval Intelligence, agrees with

Hughes that the importance of tactical maneuver of surface ships at least, has been

superseded by technology. He states that as late as the Second World War,

"...maneuverability of a fleet or a single ship...was a crucial element in every battle."[76] This

changed, according to Ya'ari, with the adoption of the anti-ship missile by the world's

navies:

> The surface ship is confronted now with a universal "smart" weapon,
> one that is so much faster and more agile than the ship - at least twenty or
> thirty times - that it is virtually unaffected by the ship's movements. The
> missile has practically annulled surface ship's maneuverability.[77]

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[73]Hughes. Fleet Tactics. 147.

[74]Hughes. Fleet Tactics. 176.

[75]Hughes. Fleet Tactics. 178.

[76]Ya'ari, Yedida. "The Littoral Arena: A Word of Caution." Naval War College Review
XLVII, No. 2. (Spring 1995). 10.

[77]Ya'ari 10.

Hughes states that although technology has reduced the tactical importance of maneuver for navies, "...the *strategic* influence of sea and land forces has always existed and has not changed much."[78] Colin S. Gray's book The Leverage of Seapower argues that navies are strategic maneuver forces.

> The mobility of sea power translates as an inherent agility that maritime command can exploit to achieve surprise. By their nature, naval forces are maneuver forces. Surprise at and from the sea is facilitated by the fact that naval forces are not canalized in their axis of threat as land forces are by natural and man-made obstacles.[79]

Hughes says that "...mobility is the natural and normal advantage of a sea power over a land power."[80] Probably the most convincing argument that sea power equals maneuver warfare at the strategic level comes from Liddell Hart in Strategy. He gives historical example after example of the use of the indirect approach made possible by sea power. His first case comes during the analysis of the wars of the ancient Greeks and Persians where he says:

> ...It is worth note that the use of strategic mobility for indirect approach was realized and exploited much earlier in sea than in land warfare. The natural reason for this is that only in a late stage of development did *armies* come to depend on "lines of communication". Fleets, however, were

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[78]Hughes. Fleet Tactics. 141

[79]Gray. The Leverage of Seapower. 263.

[80]Hughes. "Naval Maneuver Warfare." 3.

used to operate against the seaborne communications, or means of supply, of opposing *countries*.[81]

He shows the continuation of this theme to modern times. The allied blockade of Germany in World War One was "...a grand strategy of indirect approach to which no effective resistance was possible and of a type which incurred no risk except its slowness in effect."[82] Even though the British Fleet appeared largely stationary and therefore did not conjure up images of "maneuver warfare" like the Blitzkrieg, the allies used the fleet to assault a critical weakness of Germany, namely its inability to simultaneously feed its citizens and armed forces. The allies used sea power to turn an exposed flank, according to Liddell Hart. His chapter on the Second World War includes numerous examples of the allied use of the indirect approach facilitated by amphibious capabilities coupled with local command of the sea.

Leonhard states that "...without a thorough understanding of the operational level of warfare, it is impossible to grasp the essence of maneuver warfare, because the greater part of maneuver warfare takes place at this level."[83] Although written with land maneuver warfare in mind, Leonhard's statement is suitable for maneuver warfare at sea.

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[81]Liddell Hart 31.

[82]Liddell Hart 203-204.

[83]Leonhard 8.

Joint Publication 3-0 states the focus of the operational level is the "...operational art-
-the use of military forces to achieve strategic goals through the design, organization, and
execution of campaigns and major operations."[84] It further states that the operational art:

> Helps commanders understand the conditions for victory before
> seeking battle, thus avoiding unnecessary battles. Without the operational art,
> war would be a set of disconnected engagements, with relative attrition the
> only measure of success or failure."[85]

The operational level is the level at which maneuver warfare at sea needs to be studied and
applied.

E.   CHAPTER CONCLUSION

This chapter argued that the United States Navy is in the midst of significant
strategic and doctrinal innovation. It has discussed the competing views on styles of warfare
and has argued that the examination of maneuver warfare at sea must naturally focus on the
operational level.

Maneuver warfare theory was developed by land warfare theorist and practitioners.
A review of the literature is full of references to noted theorists of land warfare like
Clausewitz and Guderian. FM 100-5 and FMFM 1 are often cited as well. The writings of
naval warfare practitioners and theorists previously have begun to include these concepts

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[84]"Doctrine For Joint Operations." II-3.

[85]"Doctrine For Joint Operations." II-3.

with little or no discussion of their relevance to warfare at sea. The relevance of this practice is the main issue this thesis will attempt to address.

Chapter II will examine the essential elements of maneuver warfare theory on land. These include the "Boyd Cycle,"on which a definition of maneuver warfare will be based. A general definition of maneuver warfare at the operational level of land warfare will be developed. Next the definition and role of mission orders, the concept of the focus of the effort, and surfaces and gaps will be discussed as the main elements of maneuver warfare theory. Other factors, such as the role and purpose of firepower, counter attacks, the ratio of reserve to forward forces, and command and control systems and philosophy in land maneuver warfare theory will be analyzed. This chapter will also examine the development of maneuver warfare by the US Army and Marine Corps in order to determine why these organizations undertook this doctrinal route.

Chapter III will use the framework developed in Chapter II to determine the relevance of land warfare concepts of maneuver warfare to naval warfare. This question is vital. Naval Doctrine Command has called maneuver warfare the preferred method of fighting. Doctrine reveals how the Navy thinks about the use of military force and those thoughts will determine what type forces are built, how they are trained, and how they are employed. Doctrine influences almost all aspects of the military:

> Simply put, military doctrine affects how one fights, trains, exercises, and plans, and organizes what one buys. Military doctrine influences some of the higher level concepts driving doctrine itself, and affects a number of subordinate concepts as well. Among them are tactics, techniques, procedures, rules of

engagement, training and education, organization and force structure, analysis, programming, campaign planning, strategy, and policy.[86]

Hughes says "Doctrine must be powerful: it must cause the Navy to fight better; generating powerful military action is the deepest, the teleological, purpose of doctrine."[87] He does not like the view that doctrine is only guidance, "...to unify belief and action, doctrine must proscribe and govern...doctrine looses power to the extent that the response to it is optional."[88]

> A view presently shared in all the services is that doctrine is at once authoritative and merely guidance; doctrine is thus characterized in armed forces publications. In July 1994, however, the Chairman of the Joint Chiefs of staff disconcerted the "guidance" school with these forceful words which are to appear hence in joint publications: *The guidance in the publication is authoritative; as such, commanders will apply this doctrine except when exceptional circumstances prove otherwise.*[89]

Hughes concludes it is vital to ensure the US Navy has correct doctrine "...soundly conceived , clearly expressed, widely popular, firmly grasped, and shrewdly interpreted...."[90]

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[86]Tritten. "Naval Perspectives on Military Doctrine." 31.

[87]Hughes, Wayne P. "The Power in Doctrine." Naval War College Review XLVIII, no 3. (Spring 1995). 7.

[88]Hughes "The Power in Doctrine." 10.

[89]Hughes. "The Power in Doctrine." 27-28.

[90]Hughes. "The Power in Doctrine." 28.

This thesis will examine if the doctrine of naval maneuver warfare is based on sound principles.

The final chapter will examine the implications of Chapter III for the US Navy, especially in relation to joint warfare. Paul Bracken developed the concept of the next military to describe a military of the next ten years, using much of the same equipment and reacting to the current security environment. He contrasted this with the concept the military after the next which takes into account new security situations and technologies.[91] His article is a good framework to judge if the US Navy's interest in maneuver warfare, providing it proves relevant to naval warfare, has any long term usefulness.

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[91]Bracken, Paul. "The Military After the Next." Washington Quarterly. 16 no5. (Autumn 1993) 157.

II. THE MANEUVER WARFARE CONCEPT AND LAND WARFARE

A. INTRODUCTION: US ARMY AND MARINE CORPS FOLLOW MANEUVER WARFARE CONCEPTS

The United States ground combat forces have incorporated the concept of maneuver warfare as part of their doctrine. The US Marine Corps has done so explicitly in FMFM-1 Warfighting. Daniel Bolger insists, "...present Army doctrine is not maneuver warfare [and] maneuver warfare is not a developed doctrine nor a refined method of warfare."[92] Bolger is incorrect. While the existence of and usefulness of maneuver warfare as a separate form of warfare is still debated by some land warfare theorists and practitioners, it is a developed doctrine used by the Marine Corps and it is a sufficiently refined method of warfare for it to have become the cornerstone of US Army doctrine.

Determining if the Marine Corps has adopted maneuver warfare as doctrine is easy. Former Commandant General Gray assigns the importance of FMFM-1 Warfighting to the Marine Corps in his foreword to that document:

> I expect every officer to read and reread this book, understand it, and take its message to heart. The thoughts contained here represent not just guidance for action, but a way of thinking in general. This manual describes a philosophy for action which, in war and in peace, in the field and the rear, dictates our approach to duty.[93]

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[92]Bolger, Daniel P. "Maneuver Warfare: Flying High On Gossamer Wings." Army. (September 1986) 24.

[93]Warfighting: FMFM-1. (Washington, DC: Department of the Navy, Headquarter United States Marine Corps, 6 March 1989). foreword.

Warfighting specifically states that the basis for the Marine Corps' doctrine is the theory that:

> Just as there are two basic forms of combat [offense and defense], there are two essential components: fire and maneuver. Of all the countless activities in combat we can distill them to these.[94]

It goes on to say that "...the warfighting doctrine which we derive from our theory is one based on maneuver [and that] requirement[s] mandate a doctrine of maneuver warfare."[95]

Determining the extent of the US Army's official acceptance of the doctrine of maneuver warfare is a little more difficult because of its concept of "balance" and the use of the word "maneuver" in several different ways in FM 100-5. FM 100-5 is "...the Army's keystone warfighting doctrine ...guid[ing] Army commanders [and] describ[ing] how to think about campaigns, major operations, battles, engagements, and operations other than war."[96] The US Army views doctrine as "...the authoritative guide to how the Army forces fight wars and conduct operations other than war."[97]

The Army does not explicitly accept or reject the concept of maneuver warfare. It ostensibly advocates a concept of balance:

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[94]Warfighting. 27.

[95]Warfighting. 37.

[96]Operations: FM 100-5. (Washington, DC: Headquarters, Department of the Army, 14 June 1993) iv.

[97]Operations. v.

The components of battle can be joined in a limitless array of complex combinations. Often, elements of a defense are within every offense; within every defense , an offense. Army forces maneuver to bring firepower on the enemy, and bring firepower on the enemy in order to maneuver. Army forces tend to focus on the enemy, but will use terrain for positional advantage when warranted...Balance and a rich choice of options are key to success...Army forces seek to increase their options while limiting those of their opponents... While maintaining his balance, the commander does everything in his power to throw the enemy off balance.[98]

The Army says it believes in balance; however, its understanding of the essential elements of maneuver warfare are almost exactly the same as the Marine Corps' and of the maneuver "zealots." Throwing the enemy "off balance," for example, is an allusion to Lind's judo analogy. However, another reason why it can be argued that the US Army has not adopted a doctrine of maneuver warfare is because the word maneuver is used in a number of different respects.

Maneuver, in FM 100-5, is used as a principle of war, a primary element of combat power, a combat function, a type of unit (as in "maneuver forces"), and a form of movement. These forms of movement include envelopment, turning, infiltration, penetration, and frontal attack. The issue of the US Army's adoption of maneuver warfare as doctrine is also confused by the description of maneuver in the different circumstances addressed. For instance, maneuver as a principle of war is defined as placing "...the enemy in a position of disadvantage through the flexible application of combat power."[99] This definition is

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[98]Operations 2-3.

[99]Operations 2-10.

confusing because it is based on the definition of combat power which itself is defined as a combination of maneuver, firepower, protection, and leadership. Maneuver is defined by combat power and combat power is defined by maneuver. Furthermore, the level of analysis is confused. In the same explanation, maneuver is defined simply as tactical movement of units on the battlefield, "...movement of combat forces to gain positional advantage," and in the maneuver warfare theory paradigm as "...continually pos[ing] new problems for the enemy, rendering his actions ineffective, and eventually leading to his defeat."[100] The last part of the definition will be shown to actually paraphrase the definition of the modern concept of maneuver warfare.

This chapter will examine maneuver warfare as it is understood by the US military ground combat forces, and will describe its essential elements. FM 100-5's views on these elements will be compared with the views of the maneuver warfare theorists. This will demonstrate that maneuver warfare is not only a developed doctrine, but also that the US Army has adopted it along with the Marine Corps . After the concept is defined, the chapter will conclude with a look at maneuver warfare in history concentrating on why nations chose or were compelled to choose maneuver warfare as a doctrine. Finally, it will show why the United States ground forces adopted maneuver warfare as doctrine. This chapter will serve as a framework to analyze to what extent maneuver warfare on land is relevant to maneuver warfare at sea.

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[100]Operations 2-10.

B.   MANEUVER WARFARE DEFINED

Martin Van Creveld believes that "...as a style of warfare, maneuver is as old as war itself."[101] This is true, but the modern intellectual basis for the concept's adoption by the US Marine Corps and Army come predominantly from William Lind and the "military reformers" of the nineteen seventies. The latter were an informal group of academics, military officers, and congressmen known as the "military reformers." The military reformers were not an organized group or coalition. Leaderless, they had no common theme other than to increase the professionalism and effectiveness of the US military.

Lind's involvement in national defense issues began in 1973 with his service as legislative assistant to US Senator Taft. He eventually became Taft's military advisor. Prior to joining US Senator Hart's staff in 1977, he drafted Taft's white paper "A Modern Military Strategy For The United States." This paper was published in 1978 and criticized the US Army's "Active defense" for being overly attrition based. He co-authored Hart's 1986 book, America Can Win.[102]

His theory is based largely on Liddell Hart's theory of the indirect approach, combined with John Boyd's theory of combat commander decision making. From Liddell Hart, maneuver warfare theorists adopted the concept that defeat results from non-material

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[101]Creveld, Martin Van, Canby, Steven L., and Brower, Kenneth S. Airpower and Maneuver Warfare. (Maxwell Air Force Base, Alabama: Air University Press, July 1994) 1.

[102]Hart, Gary and Lind, William S. America Can Win. (Bethesda, MD: Adler & Adler Publishers Inc, 1986) ix-xi.

causes. The enemy is defeated when he, especially the enemy commander, believes he cannot win.

John Boyd, a retired US Air Force colonel, offered his unpublished theory of combat decision making by way of a five hour lecture titled "Patterns Of Conflict." Congressman Newt Gingrich called Boyd's theory "...a substantial portion of the original military theory developed in this century." [103] Boyd, observing air combat in the Korean War, where US airmen were ten times as successful as their enemy, developed a theory on how this was accomplished. F-86 pilots in Korea had the advantage of superior mobility, due to their aircraft's advanced hydraulic controls, and better visibility. Enemy planes were superior in all other regards, such as climb rate, acceleration rate, and sustained turn rate. "Although the MiG could perform many individual actions ...better than the F-86's, the F-86 could *transition* from one action to another more quickly than the MiG."[104]

American pilots developed tactics which capitalized on their aircraft's advantages:

> The American pilots...forced the MiG into a series of actions. Each time the action changed, the F-86 gained a time advantage, because the F-86 could see more quickly how the situation had changed, and he could make his aircraft shift more quickly into a new maneuver. With each shift, the MiG's action became more inappropriate until they were so inappropriate that the MiG gave the F-86 a good firing opportunity. Often it appeared that the MiG pilot realized what was happening to him and panicked which made the American pilot's job easier.[105]

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[103]Hart 5.

[104]Hart 5.

[105]Hart 5-6.

The experience led Boyd to believe that conflict was a "...time-competitive observation - orientation - decision - action cycle."[106] In combat, a commander observes the enemy and his surroundings, orients himself and develops an understanding of the situation. He then makes a decision as to what course of action to take, and takes that action. This has been called the "Boyd Cycle" or "OODA loop"(observation-orientation-decision-action loop). The enemy commander engages in the same process.

> If one side can consistently go through the Boyd Cycle faster than the other, it gains a tremendous advantage. By the time the slower side acts, the faster side is doing something different from what it observed, and the action of the slower side is inappropriate. With each cycle, the slower party's action is inappropriate by a larger time margin. Even though it desperately strives to do something that will work, each action is less useful than its predecessor, the slower side falls farther and farther behind. Ultimately - and often suddenly - it ceases to function effectively. Frequently, it panics.[107]

Lind saw the application Boyd's theory as the means to achieve Liddell Hart's goal of victory through the indirect approach. Lind says:

> The Boyd Theory defines what is meant by the term "maneuver" in "maneuver warfare". Maneuver means Boyd cycling the enemy, being consistently faster through however many OODA loops it takes until the enemy loses his cohesion -- until he can no longer fight as an effective, organized force.[108]

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[106]Lind 6.

[107]Hart 6-7.

[108]Lind 6.

The US Army, in one of its uses of the word "maneuver" in FM 100-5, describes it as "...the movement of forces in relation to the enemy to gain positional advantage."[109] This description of maneuver as movement is not what advocates like Lind mean by maneuver warfare. However, the paragraph continues with a description of effective maneuver:

> Effective maneuver keeps the enemy off balance and protects the force, it is used to exploit successes, to preserve freedom of action, and to reduce vulnerability. It continually poses new problems for the enemy by rendering his actions ineffective, eventually leading to defeat.[110]

The last sentence paraphrases Lind's' OODA loop based definition of maneuver warfare. It captures the essence of the goal of maneuver warfare. The Army's view on the importance and the role of the operational level is also in accordance with the tenets of maneuver warfare theory.

Lind calls the operational level of war "operational art" and says it fits between strategy and tactics. Successful maneuver warfare depends on understanding and successfully exploiting the operational level of war according to Lind and Leonhard. Maneuver warfare theory holds that the commander's role at the operational level is to decide to accept or to refuse battle. Battle is a tool, not the goal of a maneuver campaign. Leonhard sees this as a defining difference between maneuver and attrition warfare. If a battle supports achievement of the strategic aim of the campaign it should be brought about

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[109]Operations 2-5.

[110]Operations 2-5.

on favorable terms. If not, it should be avoided.[111] Leonhard says that battle is a "...building block, not an end in itself..." and won, lost, and avoided battles are used by a commander skilled in maneuver warfare to win a campaign.[112]

However, Lind and Leonhard are not completely correct. Battle is also the tool of an attrition campaign. It is how the attrition-oriented commander physically destroys his opponent. For attrition theory to be effective, battle must also be brought about under favorable conditions. The difference is that battle is the only operational goal and the only tool of the attrition warfare adherent. Battle is necessary in the "operational art" of maneuver warfare, but it is not the only option as it is for attrition warfare at the operational level.

The US Army's description of the operational level adheres to this theory and implies that maneuver is a distinct form of warfare:

> At the operational level, maneuver is the means by which the commander determines where and when to fight by setting the terms of battle, declining battle, or acting to take advantage of tactical actions. *Maneuver is dynamic warfare* that rejects predictable patterns of operations.[113][my emphasis]

The modern concept of maneuver warfare, as understood and adopted by the US Marine Corps and Army, is based on the OODA loop and the belief that victory comes predominantly from non-material causes and that one must dominate the operational level of war. This concept has several essential elements. All of these elements exist in all forms of

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[111]Leonhard 11 and Lind 24.

[112]Leonhard 11.

[113]Operations 2-5.

warfare. However, their importance or purpose in maneuver warfare are defining factors for the concept. These essential elements will be described in detail to aid in the analysis of the US Navy's concept.

C. ESSENTIAL ELEMENTS OF MODERN MANEUVER WARFARE THEORY

The essential elements in modern maneuver warfare fall into two broad categories. The first is command and control, and the second pertains to the views and applications of the battlefield and combat power. The style of command and control for maneuver warfare is unique and vital to the concept. The key aspect of maneuver warfare is the concept of the commander's intent. Every other aspect of maneuver warfare is based on and is linked to the commander's intent. The commander's intent is the end state he wishes to achieve. It must be understood by subordinate commanders. The other aspect of maneuver warfare command and control is the focus of the effort. Surfaces and gaps, enemy strengths and weaknesses, describe how a commander views the battlefield. The aspects of combat power essential to maneuver warfare as a concept are firepower, combined arms, fire support, counter attacks, the ratio of reserve to forward forces, and views of combat intangibles.

1. Command and Control

The command and control system of maneuver warfare is designed to provide a commander with the means to dominate the Boyd Cycle. Its main principle is mission orders based on the commander's intent. " Mission orders" developed from the German concept of "Auftragstaktik," demonstrate the attention paid to the warfighting style of the German Army in the Second World War by much of the literature on maneuver warfare. Auftragstaktik was

seen as a solution by the Germans to the problem of battlefield dispersion caused by modern

weapons. In addition, competent leaders capable of making and carrying out a decision

quickly was also seen as a way of dealing with "friction."[114] .

> Mission type orders are key to the decentralization necessary for a
> rapid Boyd Cycle. A mission type order tells the subordinate <u>what</u> his
> superior wants to have accomplished. That is the <u>mission</u>. It leaves <u>how</u> to
> accomplish it largely up to the subordinate. As the subordinate's situation
> changes, he does what he thinks is necessary to bring about what the result his
> superior wants. He informs his superior what he has done, but does not wait
> for permission before he acts. What would happen to his Boyd Cycle if he
> did?[115]

The concept is different from telling a subordinate what to do and not how to do it. It

is not simply telling a subordinate to "take that hill" and letting him decide the tactics. The

commander's intent tells a subordinate *why* he has been assigned a particular role. The

intent, or the end result the commander wants to achieve, is the why. If a subordinate

commander can fulfill his role in the action by a method that is radically different than what

his superior envisioned, he is free to do so. This freedom of choice is vital to the concept of

maneuver warfare. Subordinate commanders must be able to rapidly exploit weaknesses the

appear during the course of the action. The Marine Corps not only believes that mission

orders allow freedom of action but also "...establish[es] the duty - to take whatever steps [the

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[114]Nelson III, John T. "*Auftragstaktik*: A Case For Decentralized Battle." <u>Parameters</u>
XVIII, no. 3. (September 1987). 21-34.

[115]Lind 13.

subordinate commander] deems necessary based on the situation."[116] The commander's intent, which does not change as easily as a task does with a changing situation, is what cements the subordinate actions to the goal and preserves unity of effort.[117]

This philosophy requires a command and control system that is made up of capable and trusted subordinates who are thoroughly familiar with the purpose of operations they are undertaking. Simpkin says "...let us be absolutely clear what we are talking about, *a chain of trust and mutual respect* running unbroken [from the highest to the lowest level of command]."[118] Commanders must have trust in their subordinates' ability, but must also have a way to monitor or observe their subordinates. "The first [requirement] of freedom of action," according to Simpkin, "...is immediate and full reporting."[119]

Chapter VI of FM 100-5, "Planning and Executing Operations", describes mission orders as those orders based on the commander's intent "...which specify what the subordinate commands are to do without prescribing how they must do it..."[120] and says the following about the commander's intent:

> The commander's intent describes the desired end state. It is a concise expression of the purpose of the operation and must be understood two

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[116]Warfighting. 70.

[117]Warfighting. 71.

[118]Simpkin, Richard E. Race To The Swift: Thoughts on Twenty-First Century Warfare. (London: Brassey's Defense Publishers, 1985) 241.

[119]Simpkin 233.

[120]Operations 6-6.

echelons below the issuing commander. It must clearly state the purpose of the mission. It is the single unifying focus for all subordinate elements.

It is not a summary of the concept of the operation. Its purpose is to focus subordinates on the desired end state. Its utility is to focus subordinates on what has to be accomplished in order to achieve success, even when the plan and the concept of operations no longer apply, and to discipline their efforts to that end.[121]

2.   The Focus of the Effort

The second essential element of modern maneuver warfare theory is the focus of the

effort of the operation. It is based on the concept of the commander's intent. It is the way

the commander believes the desired end state will be achieved. "In effect, [the commander

has] decided: *this is how I will achieve a decision; everything else is secondary.*"[122] This is

different than the concept of a center of gravity. The center of gravity was originally

described by Clausewitz who defined it as being:

> ... always found where the mass is concentrated more densely. It presents the most effective target for a blow; furthermore, the heaviest blow is that struck by the center of gravity.[123]

The maneuver warfare adherents believe that Clausewitz holds the center of gravity

always as the center of mass of the army. They do not support this view. For them, the

center of gravity is the critical vulnerability of the enemy. "Destruction or neutralization of

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[121]Operations 6-6.

[122]Warfighting 73.

[123]Clausewitz, Carl Von. On War. Howard, Michael and Paret, Peter, ed and trans. (Princeton New Jersey: The Princeton University Press, 1984) 485-486.

[the enemy's] center of gravity must not merely result in reduction of his capabilities, but rather in the paralysis of his forces."[124] The US Marine Corps does not even use the phrase "center of gravity" and considers it a dangerous concept. It describes its reasoning in a footnote:

> [The center of gravity] is consistent with Clausewitz' historical perspective. But we have come to prefer pitting strength against weakness. Applying the term to modern warfare we must make it clear that by the enemy's center of gravity we do not mean a source of strength, but rather a critical vulnerability.[125]

The US Army says that the center of gravity is the "...hub of all power and movement upon which everything depends."[126] This implies that the army views center of gravity in the classical sense of a source of strength. However, it continues its description in terms that mean critical vulnerability:

> It is that characteristic, capability, or location upon which from which enemy and friendly forces derive their freedom of action, physical strength, or will to fight.
> For example, the center of gravity might concern the mass of enemy units, but that mass might not yet be formed. Additionally, the center of gravity may be abstract, such as the enemy's national will or alliance structure, or concrete, such as strategic reserves, C2, or industrial bases and LOCs.[127]

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[124]Leonhard 20.

[125]Warfighting 85.

[126]Operations 6.

[127]Operations 6-7.

The focus of the effort may attack the enemy's center of gravity but the two are different and non-interchangeable concepts. The focus of the effort is the primary entity involved in an action to achieve the commanders intent.

> When a unit is designated the focus of effort, all other units work to support it. It gets the artillery, air, and so on. The reserve is positioned to be able to exploit its success. Its neighbors as themselves, "What can I do to support the [focus of effort]"... not just the main attack (though the main attack is often at the [focus of effort]). It is a conceptual focus not a physical one.[128]

The US Army uses the term point of effort, which Lind says can be dangerous, but it description is the same as the US Marine Corp's description. A "point of effort" helps commanders and their staffs "...allocate resources accordingly, providing focus to the operation while setting priorities and determining risks, promoting unity of effort, and facilitating an understanding of the commander's intent."[129]

3.   Surfaces and Gaps

Surfaces and gaps describe the way a battlefield is divided in a maneuver commander's mind. They represent the strengths and weaknesses of the enemy and take into account the terrain. Lind says he does not call them strengths and weaknesses because strengths and weaknesses appear as solid surfaces or gaps to ground commanders. This concept is based on the commander's intent, and is linked to the concept of focus of effort,

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[128]Lind 13.

[129]Operations 6-6.

because it helps determine the focus. Ideally, the focus of effort should be directed towards the enemy critical vulnerability through an enemy gap not against an enemy surface.[130] The US Marine Corps does recognize the possibility that a gap may not be present:

Whenever possible, we exploit existing gaps. Failing that, we create gaps.[131]

The concept of surfaces and gaps requires the concept of the "reconnaissance pull" to replace the concept of "command push." The command push reconnaissance system is characterized by the commander determining the axis of advance or attack first and then sending out reconnaissance forces on that axis. The main body then follows. In maneuver warfare theory, reconnaissance should pull the focus of effort through gaps. The commander sends out reconnaissance first. Gaps are determined and then the commander designates the focus of effort.[132] Generally, a larger proportion of forces are used in the reconnaissance role in a maneuver-based army than in an attrition-based one.

The US Army does not explicitly call for a "reconnaissance pull" like the US Marine Corps, but it's description of a successful attack describes this concept even as it borrows the "expanding torrent" description of an attack first made by Liddell Hart in Strategy.

The ideal attack might resemble a torrent of water rushing forward and expanding it channels around major resistance. It should move fast, follow reconnaissance units or successful probes through gaps in enemy defenses,

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[130]Warfighting 73.

[131]Warfighting 74.

[132]Lind 18-19.

and shift its strength quickly to widen penetrations and reinforce its successes, thereby carrying the battle deep into the enemy's rear.[133]

4. The Role of Firepower, Combined Arms Concept, and Fire Support

Many critics of maneuver warfare theory say that it minimizes the element of firepower. To them the maneuver warfare supporters fall into the fallacy that Clausewitz warned of in his chapter discussing "the maximum use of force." "Kind hearted people might of course think there is some ingenious way to disarm or defeat an enemy without too much bloodshed, and might imagine that it is the true goal of the art of war."[134]

This is easily exaggerated. None of the literature on maneuver warfare claims that firepower is not important or that movement of forces alone is sufficient to bring about victory. However, the maneuver theorists agree with the last sentence of Clausewitz' explanation of the maximum use of force which states: "The maximum use of force is in no way incompatible with he simultaneous use of the intellect." [135] Firepower is a critical element of maneuver warfare; however, the role and purpose of firepower is different.

There is no debate over whether units fire in order to move or move in order to fire, they do both according to the situation. The purpose of firepower in maneuver is to aid in the creation of a "...series of unexpected and dangerous situations for the enemy."[136] A

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[133]Operations 6-19.

[134]Clausewitz 75.

[135]Clausewitz 75.

[136]Lind 19.

combined arms approach to fire support, which multiplies the effectiveness of firepower,

serves this purpose.

> Combined arms hits the enemy with two or more arms simultaneously
> in such a manner that the actions he must take to defend himself from one
> make him more vulnerable to another...Combined arms, like other elements of
> maneuverwarfare, seek to strike at the enemy psychologically as well as
> physically.[137]

The US Army's concept of firepower and combined arms and fire support is also

based on modern maneuver warfare concepts. The goal is to:

> ...confuse, demoralize, and destroy the enemy with the coordinated
> impact of combat power. The enemy cannot comprehend what is
> happening; the enemy commander cannot communicate his intent nor can he
> coordinate his actions. The sudden and devastating impact of combined
> arms paralyzes the enemy's response, leaving him ripe for defeat.[138]

5.   Counter Attacks and the Reserve

Modern maneuver warfare does not ignore the defensive. Maneuver theorists do not

hold the unreasonable view that they will always be able to be on the offensive strategically

or operationally. However, they look on enemy attacks as potentially exploitable

opportunities. Attacks concentrate the enemy's strength towards his front, presenting a

strong surface and creating the potential for a gap at his rear or flanks. The best way to

shatter an opponents attack, according to maneuver warfare theorists, is through the use of a

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[137]Lind 21.

[138]Operations 2-3.

strong reserve against the gaps in the enemy flank or rear once he is committed to the attack. This is preferable to meeting the attack head on.[139]

In addition to the strength required in the defensive and counter attacking role, using the reconnaissance pull approach also requires a strong reserve. Gaps are often fleeting and a commander must have forces ready to "...widen the gap and create local success."[140] The reserve is not a small force to reinforce the main body should it get into trouble. It is a means to achieve decision. It is used to exploit successes rather than prevent failures.

The US Army's doctrine for employment of the reserve is based on maneuver warfare theory.

> The employment of the reserves may be the most crucial decision commanders make. As the battle is joined, operational-level commanders adjust the final maneuver of their forces and look for opportunities to defeat the enemy's defense in depth. In particular, they seek ways to employ their operational reserves decisively. In battle, commanders position operational reserves where they can best exploit tactical success.[141]

6. Intangibles

The role of intangibles was first mentioned at the end of first chapter's brief description of maneuver and attrition. The view of the attrition warfare school of intangibles in warfare is that they are of minor importance. If useful at all they are simply a force multiplier to increase the efficiency of the attrition battle. In maneuver warfare theory, the

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[139]Lind 21-22.

[140]Lind 22.

[141]Operations 6-19.

same intangibles, like will, courage, cohesion, and morale are the most important

component. Destruction of these intangibles ultimately creates victory. The Army's FM

100-5 accepts this view, almost to a dangerous extreme. An example is its lengthy

discussion of the role and importance of "will."

> Will is the disposition to act toward achievement of a desired end
> state. It is an expression of determination, the articulation of choice and
> desire. A platoon takes the hill because it wants to take the hill. The squad
> defends its position because it wants to defend its position.
> War is a contest of wills. Combat power is product of military forces
> and the will to fight. When will is lacking, so is combat power; when will is
> strong, it multiplies the effectiveness of the military forces.
> Ultimately, the focus of all combat operations must be the enemy's
> will.
> Break his will and he is defeated. When he no longer wants to fight,
> he cannot fight. Conversely, if his will remains strong, even though he is
> physically weakened and materially depleted, he remains a formidable
> opponent.
> Leaders are the main source of will. They inspire their soldiers with
> the desire to win, to accomplish the mission, and to persevere in the face of all
> difficulties. When the will of the enemy commander is broken, his force
> quickly disintegrates. Analyzing and attacking the underpinnings of his will
> therefore is the key to victory.[142]

Maneuver warfare is a distinct style of thinking about, organizing for, and fighting

wars. Like attrition or revolutionary warfare it represents one view of the continuum that is

"war." Its distinctness is derived from the way its adherents view and apply aspects common

to all types of warfare. The US Army and Marine Corps have adopted this style of war

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[142]Operations 6-7.

fighting as doctrine. It is a change from the traditional attrition based doctrines and concepts of operations of those organizations.

D. WHY THE US ARMY AND MARINE CORPS ADOPTED THE MODERN CONCEPT OF MANEUVER WARFARE.

1. Maneuver Warfare As A Historical Choice

Maneuver warfare, like all political and military choices, is one that is made by policy makers constrained by political, economic, and social factors. This is true of the period of wars in the 18th century which was marked by warfare where maneuver, rather than battle, often was decisive on its own, and a commander's reputation was based his success in decisive maneuvering.

> The eighteenth century system of war, wrote Marshal Foch, "tried to achieve their objectives by stratagems, threat, negotiation, maneuver, partial actions, occupation of hostile territory, and the capture of fortified places." The marshal accepted the oft-held view that war in the age of Reason was limited because its exponents wished it to be so, that generals earned their reputations by ponderously moving their armies round the low countries deliberately avoiding battle.[143]

Strachan believes that social, economic, and political reasons limited the objectives of warfare and caused a focus on maneuver. European powers did not want to repeat the destruction of the Thirty Year's War. Industry was just beginning in many countries and needed protection. Each additional soldier for the army was one removed from agriculture or industry. This affected militaries in two ways. Less people involved in production would

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[143]Strachan, Hew. European Armies and the Conduct of War. (London: George Allen & Unwin, 1983) 8.

limit supplies. Also, very importantly, smaller numbers of people involved in production would limit tax revenues collected by the monarch further limiting the size of the forces he could field.[144]

The social and political order was ruled by monarchs. Preservation of this order was more important than decisive defeat of enemy nations. This had the effect of limiting the size of armies and the goals of conflicts. Monarchs attempted to limit the expense of wars because they did not want to bargain away their power for increased tax revenues from developing parliaments. Also limiting decisiveness was the social composition of the army. Its officers were of the noble class while its soldiers were of the lowest classes. The soldiers deserted often, making reconnaissance and more dispersed tactics impossible.[145]

Other uncontrollable conditions limited the decisiveness of battle. Communication was poor. This led to massing of forces on traversable roads. Movement was slow and supplies from the surrounding areas were quickly used up. This necessitated longer supply trains which, in turn, slowed down the army further and diverted troops from battle to protect the supply train. Communication was not only poor, but good communication was known by the enemy. Advances were naturally canalized and a nation could set up fortifications in peacetime on avenues of approach. These fortifications could be well stocked with food and ammunition. Attackers were at a disadvantage because the longer the siege lasted, the less supplies they would have because the surrounding countryside would soon become barren.

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[144]Strachan 8-10.

[145]Strachan 9.

The defensive was much stronger than the offensive.[146] Strachan concludes that "War was in consequence limited by its means, but this was in spite of its practitioners, not because of them."[147]

Like limited warfare in the Age of Reason, the adoption of maneuver warfare as a doctrine or concept of operations in recent times is a reflection of choices made under constraints. There are three main reasons why nations embraced maneuver warfare in the twentieth century. They are a means to professionalize the army; an attempt to compensate for the quantitative superiority of an opponent by providing quick, decisive, and relatively inexpensive operational victories; and an attempt to overcome the inherent superiority of the defense.

The German Army, which is considered the model of a maneuver warfare force by the US Army and Marines, provides a good example of all three reasons. Contrary to the opinion that the Germans only adopted maneuver warfare after the First World War with the development of Blitzkrieg, they adopted it in the late 19th century. The Schlieffen Plan is an example. Geyer says that the Prussian, and later German General Staff, was concerned that the "nation in arms" seen during the Napoleonic Wars would mean the loss of control of the professional military class over the armed forces.

> Schlieffen seemed to have found the perfect solution for a
> professionally autonomous war in which the art of military operations -

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[146]Strachan 10-11.

[147]Strachan 11.

decision oriented warfare, the Cannae principle of envelopment - served only one superior rationale: to preserve war as a professional domain.[148]

Other scholars disagree that the Cannae principle of envelopment served only one superior rationale. They believe the German choice of maneuver warfare was an example of the second reason. The Germans saw the choice of maneuver warfare as the solution to its problem of encirclement by more powerful adversaries. Posen argues that "Germany was military weak and surrounded by strong neighbors...."[149] Although other nations surrounded by strong neighbors developed different solutions to the problem, for Germany this led to an offensive mind set beginning with Frederick the Great.

> Since the reign of Frederick the Great, the Prussian and later German Officer Corps had dedicated themselves to a particular style of warfare. The famous German General Staff stressed mobility above all else. It strove for flank attacks, envelopments, and encirclement battles of annihilation...Systematic causes, both political and geographic, played an important role in the evolution of this doctrine. Germany faced enemies on several fronts whose total military power exceeded her own...Historians agree that a primary determinant of the character of German Doctrine was the two-front war problem.[150]

Thirdly, maneuver warfare is an attempt to counter the inherent superiority of the defense on land and make land warfare decisive. The superiority of defense on land has long been regarded as true by soldiers and theorists. Clausewitz states that *"The defensive form of*

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[148]Geyer, Michael. "German Strategy in the Age of Machine Warfare, 1914-1945." Makers of Modern Strategy: From Machiavelli to the Nuclear Age. Paret, Peter ed. (Princeton, NJ: Princeton University Press, 1986) 531.

[149]Posen, Barry R. The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars. (Ithaca and London: Cornell University Press,1984) 180.

[150]Posen 183.

been regarded as true by soldiers and theorists. Clausewitz states that "*The defensive form of warfare is intrinsically stronger than the offensive* [emphasis in original]."[151] He believes this is due primarily to the defender's advantage of position. However, he adds that the defensive form of warfare is stronger but has a "negative object."[152] "Defense has a passive purpose: *preservation;* and attack a positive one: *conquest* [emphasis in original]."[153] The belief that the defensive was the stronger form of warfare but the offensive was decisive, was reinforced after the failure of the Schlieffen Plan led to trench warfare in World War One on the Western Front. Maneuver warfare was seen by many theorists as a way to reintroduce decision in land warfare. For example, Simpkin calls Blitzkrieg a "...pragmatic managerial response to an extremely difficult situation" of returning "...mobility and offensive capability to the infantry" under Treaty of Versailles constraints.[154] The quest to bring decision back to land warfare was not unique to Germany. "A major theme in Liddell Hart's publications on this issue," writes Bond and Martin, "...is that the defensive is markedly superior to the attack in modern land warfare and that weapons development actually increases this superiority."[155] He continues that "...in revulsion to the static trench deadlock of 1914-1918, [maneuver

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[151]Clausewitz 358.

[152]Clausewitz 358.

[153]Clausewitz 358.

[154]Simpkin 27.

[155]Bond, Brian and Alexander, Martin. "Liddell Hart and DeGaulle: The Doctrines of Limited Liability and Mobile Defense." Makers of Modern Strategy: From Machiavelli to the Nuclear Age. Paret, Peter ed. (Princeton, New Jersey: Princeton University Press, 1986) 613.

warfare theorists] sought to restore mobility, minimize casualties, and secure a speedy

victory by means of a small, elite, professional mechanized armies."[156]

2. The US Army and Marine Corps Adopt the Concept of Maneuver Warfare

The US Army and Marine Corps adopted the concept of maneuver warfare in early

1980's. The reasons those organizations did was primarily for the second historical reason.

They expected to be vastly outnumbered if war came with the Soviet Union. The second

reason was to increase the professionalism of the US Army and reduce the negative effects of

its involvement in the Vietnam War.

The doctrine of the US Army in the early late 1970's and early 1980's was a function

of political, economic, and social factors. Politically, the US Army had to be based forward

on the inter-German border. It was not feasible to have a doctrine that supported anything

else than defending all of West German territory. Secondly, the war in Vietnam had a

tremendous political and social effect on the United States and its military forces.

> The war in Vietnam, of course, has been the single most important
> cause of turbulence and uncertainty for the Army of the 1970's and 1980's.
> The war in Vietnam was the American Army's least successful war. Not only
> did the outcome cast into doubt the whole post-1950's rationale for the Army;
> the manner in which the war was fought also generated profound misgivings
> within the service as well as among the American people at large about the
> possible erosion of the Army's tactical, operational, and strategic skills.
> Moreover, the outcome raised questions about the Army's continued loyalty

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[156]Bond and Alexander 623.

to those national democratic values with which the military's relationship has been one of tension at best.[157]

The Army's doctrine of the time was influenced by what Bradford and Brown call the Vietnam legacy, "... a circumscribed role for ground forces"[158] and budget constraints from a planned post-Vietnam peace dividend.[159] It was also based on the US Army's Training and Doctrine Command's (TRADOC) interpretations of the lessons of the 1973 Arab-Israeli War. Leonhard says the main tenets of Active Defense were that all war is tactical, the first battle is vital and the US Army must win it, and forces must be technically and tactically proficient.[160] The 1976 edition of FM 100-5 detailed this doctrine and, according to Weigley, was a departure from the American way of war.

> The manual departed from the American Army's traditional preference for the offensive as the decisive form of war to give a new emphasis on the virtue of the defensive, to the extent that some readers interpreted it as asserting the superiority of the defensive in war. Without actually going that far, the manual suggested that an active defense could exploit the lethality of modern weaponry to destroy a major portion of the enemy's armed forces before the transition to an American offensive should occur.[161]

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[157]Weigley, Russell F. History of the United States Army. (Bloomington, Indiana: Indiana University Press, 1984) 558.

[158]Bradford, Zeb B. and Brown, Frederick J. The United States Army in Transition. (Beverly Hills and London: Sage Publications, 1973) 45-47.

[159]Bradford and Brown 43-44.

[160]Leonhard 130-135.

[161]Weigley 578.

In the late 1970's and early 1980's, Active Defense came under attack from various

sources, especially the "military reformers" and even from TRADOC. In 1977, General Don

Starry head of TRADOC said that

> ...even factoring in the latest technology and equipment the West could
> offer, the force ratios and anticipated loss rates in the Central Battle would
> eventually produce a Warsaw Pact victory.[162]

In 1986, the US military ground forces (including three marine divisions)

consisted of 20 divisions, 11,053 tanks, 3,491 artillery pieces, 9,785 armored personnel

carriers, and 5,345 helicopters. The Soviet Union had 193 divisions, 51,000 tanks,

34,000 artillery pieces, and 70,000 armored personnel carriers. The United States was

superior to them in the number of helicopters. The People's Republic of China had 158

divisions, 11,450 tanks, and 12,800 artillery pieces. The United States was superior to

them in numbers of armored personnel carriers and helicopters.[163] Although these

numbers are "rough" and say nothing about quality of equipment and troops, they

demonstrate that the United States was vastly outnumbered. Hart and Lind saw the force

ratio problem as insurmountable without adopting maneuver warfare.

The solution to the numbers problem on the Central European Front was seen as

blunting the first attack and attacking the follow on forces to prevent a decisive break

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[162]Leonhard 136.

[163]Hart 29.

through.[164] This eventually became the Airland Battle Doctrine which is based on

maneuver warfare. Weigley writes that this became doctrine with the 1982 edition of FM

100-5.

> The 1982 edition of FM 100-5 faced yet more candidly than its predecessors the advantage of the Soviet Army and its allies would enjoy in any European showdown...The means of gaining the initiative was no longer to be an effort to concentrate forces in quest of a local superiority unlikely to be attainable - though of course concentration of as much power as possible at decisive points remained a cardinal principle. Instead, the means of gaining initiative was to be agile maneuver, which would unhinge the enemy's psychological and physical balance and thereby permit the possession of the initiative to shift.[165]

In addition to the practical military reasons for adopting maneuver warfare, the

doctrine also served to counter the "profound misgivings" which Weigley said were held by

many in the army over the feared erosion of skills. The Army was not the only group that

feared a disastrous erosion of war fighting skills. The military reformers believed that "Our

last brilliant victory was in 1950: General Douglas MacArthur's audacious Inchon

landing."[166] The reformers believed that the "brilliant victory" was followed by "...a bitter

retreat through North Korea in the face of Chinese intervention and stalemate."[167] The

failure in Viet Nam, in which the US was technologically superior, followed. After Viet

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[164]Leonhard 137.

[165]Weigley 579.

[166]Hart 1.

[167]Hart 1.

Nam, the US military failed in the Mayaguez rescue handling the operation, according to Hart and Lind, "...so badly that forty-one marines were killed rescuing forty seamen - who were in the process of being released, with their ship, by the Cambodians."[168] The "...ignominious failure..."[169] of the Iran hostage rescue mission followed the Mayaguez incident. In 1983, there were two more indications of the problems in the US military. They were the Beirut bombing which left 241 marines dead and the invasion of Grenada. Hart and Lind believe the United States did succeed in Grenada. However; they were troubled by the performance of the US military:

> The once-elite Eighty-Second Airborne Division did poorly in the face of Cuban construction workers. It advanced only about five kilometers in three days[170]

The failures in the 1980's occurred during a time of defense funding increases leading the reformers to believe that money alone would not solve the military's problems. The solution was seen as maneuver warfare.

A common theme throughout all of the literature on maneuver warfare is that its execution requires more highly trained forces. Doctrine which espouses this requires an increased focus on professional war fighting skills.

The US Marine Corps began to consider and eventually adopt the concept of maneuver warfare as doctrine during the same time for the same reasons. Although the US

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[168]Hart 2.

[169]Hart 2.

[170]Hart 3.

Marine Corps' mission was different than the US Army, which prepared to face a massive Warsaw Pact ground force in Central Europe, it believed maneuver warfare was the solution for its problem. The US Marine Corps believed its role as an expeditionary force would almost invariably place it in a combat against numerically and even qualitatively (in terms of heavy equipment like tanks and artillery) superior opponents. General Gray experimented with maneuver warfare when he commanded the US Marine Corps' Second Division and it was doctrine when he became Commandant.

III. IS MANEUVER WARFARE RELEVANT TO NAVAL WARFARE?

A. INTRODUCTION

Maneuver warfare's distinctness derives from its incorporation of elements shared by other styles of warfare such as attrition, revolutionary, or information warfare. The warfare style of an armed force reflects the way it views combat and shapes the way it is organized, equipped, and trained. Maneuver warfare is based on the belief that victory comes predominantly from non-physical means. It views warfare as a time-competitive contest between two opposing commanders engaged in the Boyd Cycle. It is centered on the operational level of war and assigns primary importance to destroying an enemy's ability to conduct operations as a cohesive unit and on breaking his will. Maneuver warfare theorists believe that an enemy unable to function as a unit is defeated even if it is not completely physically destroyed. If physical destruction of the enemy is necessary for the accomplishment of the mission, maneuver warfare advocates promise the task will be accomplished more quickly, decisively, and with less cost to friendly forces.

Other styles of warfare, like attrition, do not believe that victory results only from the utter physical destruction of enemy forces. Clausewitz recognized that "Military activity is never directed against material force alone; it is always aimed simultaneously at the moral forces which give it life, and the two cannot be separated."[171] For example, before the Battle of Verdun, Falkenhayn believed France was at the brink of exhaustion and planned Verdun

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[171]Clausewitz 137.

to ensure the "...enemy's will to victory was broken and with that its desire to carry on the war."[172] The Battle of Verdun was not even planned to create a breakthrough:

> Instead, a limited offensive against a vital part of the front would allow Germany to claim the initiative and compel France to "throw in everything they [had]. If they [did,] the forces of France [would] bleed to death ... whether we reach our goal or not...the moral effect on France [would be enormous]."[173]

Here is an example of attrition employed at the operational level with the strategic objective of victory through non-physical causes - breaking the will of the French nation to continue the war.

The difference in the focus on the utility of physical destruction between warfare styles is a matter of degree. Maneuver warfare theory places much less importance on using physical destruction to influence the psychology of the enemy commander than attrition theory. Attrition theory relies to a greater extent on firepower to destroy the enemy's will and cohesion. Leonhard says destruction may be necessary for maneuver warfare depending on the circumstance faced by the commander. However, like other maneuver warfare advocates, he characterizes it as almost always the least efficient choice.[174] Maneuver theorists would point out that Falkenhayn's Verdun plan failed. The will of France to continue the war was shaken but not broken and by the end of the battle, German "...troop

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[172]Asprey, Robert B. The German High Command at War: Hindenburg and Ludendorff Conduct World War I. (New York: William Murrow and Company, Inc, 1991) 218.

[173]Asprey 220.

[174]Leonhard 19-20.

morale was rapidly reaching rock bottom - 'many men refused to leave their trenches when ordered to attack.'"[175] Of course the French suffered greatly as well, but the German operational use of attrition failed.

Nations choose maneuver warfare for several reasons. First, maneuver warfare is offered by advocates as a method to increase the overall quality of the armed force. Maneuver warfare theory's reliance on decentralized command and control places a premium on initiative at all command levels. For this style of war fighting to work, the training and professionalism of individual service members must be high so that their individual decisions and actions do not detract from the mission. The second reason is to overcome problems of quantitative superiority of potential enemies. Nations choose maneuver warfare when they cannot, because of resource limitations or lack of political will, maintain armed forces at the level of their adversaries. Finally, the defensive is superior in land warfare but the offensive is decisive. Maneuver warfare is seen as a way to overcome the inherent superiority of the defense and restore decisiveness to land warfare. The United States Army and Marines adopted maneuver warfare in the early 1980's primarily to overcome the quantitative superiority of the USSR ground forces. Also, the military reform movement seized upon maneuver warfare as a way to reverse what they considered to be a consistent 30-year pattern of military failure by the United States. Maneuver warfare was adopted by the US Army and Marines in a security environment which remained relatively stable for four decades.

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[175] Asprey 225.

The security environment under which the US Navy has chosen to adopt maneuver warfare is very different.

B.   THE US NAVY'S CHOICE OF MANEUVER WARFARE

The US Navy has chosen to adopt maneuver warfare under radically different circumstances than the Army and Marines. The world is in a period of transition after the end of the Cold War. There is no consensus among academics or policy makers as to what the end result of this transition will be.[176]

Section 603 of the Goldwater-Nichols Defense Department Reorganization Act of 1986 requires the President of the United States to submit a national security strategy every year. The 1996 version demonstrates the difference in the security environment of the early nineteen-eighties and the present time.

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[176]Note: for a small sample of the numerous ideas on the future security environment see:
- Friedburg, Aaron L. "Ripe For Rivalry: Prospects For Peace in a Multipolar Asia." International Security 18, no 3. (Winter 1993/94). 5-33.
- Fuller, Graham. "The Next Ideology." Foreign Policy. No 98. (Spring 1995). 145 - 158.
- Huntington, Samuel P. "America's Changing Strategic Interests." Survival XXXVIII, no. 1. (January/February 1991). 3-17.
- Huntington, Samuel P. "The Clash of Civilizations?". Foreign Affairs. Vol 72. (Summer 1993). 22-29.
- Kaplan, Robert D. "The Coming Anarchy." The Atlantic Monthly. Vol 273. (February 1994). 44-76.
- Libicki, Martin C. "The Next Enemy." Strategic Forum. No 35. (July 1995). 1-4.
- Luttwak, Edward M. "The Coming Global War For Economic Power." The International Economy. (September/October 1993). 18-22, 64-67.
- Singer, Max and Wildavsky, Aaron. The Real World Order: Zones of Peace/Zones of Turmoil. (Chatham, New Jersey: Chatham House Publishers). 1993

America's security imperatives ...have fundamentally changed. The central challenge of the past half century - the threat of communist expansion - is gone. The dangers we face today are more diverse.[177]

The US Army of the Cold War faced a clear, singular threat: invasion of Western Europe by the massive ground forces of the Warsaw Treaty Organization. Today, the Navy faces multiple, uncertain threats. The threats listed in the 1996 National Security Strategy include: ethnic conflict, rogue states, proliferation of weapons of mass destruction, large scale environmental degradation, rapid population growth, terrorism, international crime, and drug trafficking. Most are not expressed in terms of specific nations.[178] Iran, Iraq, and North Korea are the only nations specifically listed in that document as near-term threats. The President's national security advisor, Anthony Lake, adds Cuba and Libya to what he terms the "backlash states." Backlash states are those "recalcitrant and outlaw states that not only choose to remain outside the family of nations, but also assault its basic values."[179] However the near-term threat by these states to the interests of the United States pales in comparison to that posed by the erstwhile Soviet Union:

For now, they lack the resources of a superpower, which would enable them to seriously threaten the democratic order being created around them. Nevertheless, their behavior is often aggressive and defiant. The ties between

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[177]"A National Security Strategy of Engagement and Enlargement." (February 1996) I.

[178]National Security Strategy. I.

[179]Lake, Anthony. "Confronting Backlash States." Foreign Affairs 73, no. 2. (March/April 1994) 45.

them are growing as they seek to thwart or quarantine themselves from a global trend which they seem incapable of adapting.[180]

While originally adopted to face the massive Red Army, maneuver warfare has been retained by the US Army and Marine Corps for use against the smaller and lower quality armed forces of the backlash states. Maneuver warfare's promise of more rapid, inexpensive, decisive victories than any other style of warfare is still sought. It is still seen as a way to overcome the inherent superiority of the defense on land.

On the surface, the US Navy's choice of maneuver warfare seems inappropriate. Far from being outnumbered or suffering from a lack of professionalism, "Our military might is unparalleled."[181] This is especially true for the Navy, the preeminent naval power in the world. The navies of all of the backlash states combined do not approach the size or sophistication of the US fleet.

Another reason why nations have chosen to adopt maneuver warfare is to overcome the inherent strength of the defense in land combat. This situation is 180 degrees different from that which exists at sea. Herbert Rosinski wrote of a "...fundamental peculiarity of naval warfare [which] confronts a commander at sea with problems and perplexities unknown to his college on land...."[182]

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[180]Lake. 45.

[181]National Security Strategy I.

[182]Rosinski, Herbert. "Mahan and World War II." The Development of Naval Thought. Simpson III, B. Mitchell, ed. (Newport, Rhode Island: The Naval War College Press, 1977) 23.

The normal situation between two opposing armies is one of more or less close contact, thanks to which the defender can frequently make a shrewd guess at the dispositions of his opponent, while the accidents of the ground, canalizing any attacker into certain predetermined channels, frequently enable him to concentrate his defense upon a few decisive lines and strengthen it by the utilization of suitable positions...At sea, on the other hand, all conditions that tend to strengthen the defense *vis-a-vis* the attack are absent[183].

Hughes was writing about the tactical level at a time when the operational level was not

recognized by the United States Navy. However, his comments agree with Rosinski.

Hughes says:

All fleet operations based on defensive tactics (but not all defensive forces) are conceptually deficient. A successful defensive naval strategy entails a concentration of force and a successful attack.[184]

The reason that maneuver warfare at sea is not an illogical choice for the Navy is its

emphasis on littoral war with the intention to directly intervene on land against ground-based

forces. In the littoral, the defense is stronger than the offense and the US Navy will be

outnumbered.

Although limited in usefulness because he was only discussing surface ships, Ya'ari's

statement on littoral warfare applies to the US Navy as a whole:

The movement into the littoral is much more than a mere change of mission. The constraints in that "ballpark" are quite different from the ones that shaped the development of most current naval force structures.[185]

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[183]Rosinski 23.

[184]Hughes. Fleet Tactics. 38.

[185]Ya'ari. 8.

Ya'ari lists specific aspects of the littoral which are different from fighting in the open ocean. These differences are a "matter of degree" rather than unique; however, he believes the degree of difference is so great that a force not trained and equipped specifically for the littoral will suffer at the hands of one that is.[186]

Because of technological advances in detection and tracking systems, Ya'ari states, a navy operating in the littoral will be under almost constant surveillance. This is coupled with the fact that many littoral areas constrict the movement of larger ships, similar to terrain having the ability to canalize a ground attack, and are surrounded by shorelines controlled by the enemy.

> [The shoreline] is not a passive entity. In fact, in this regime the opponent on land enjoys quite significant advantages. One of them is the modern coastal defense system, comprising of radar, electronic surveillance, anti-surface missiles, high speed surface combatants, and aviation.[187]

He neglects to add mines and diesel submarines, but correctly points out that the relatively discreet threat "bearings" of the open ocean become large threat "envelopes" in the littoral. The defensive is the stronger form of warfare in the littoral seas.

Ya'ari believes a major reason why the defense is stronger in the littoral is due to anti-ship missiles. "In practical terms, the offense has a huge and nearly motionless target to

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[186]Ya'ari. 9.

[187]Ya'ari. 8.

hit and needs to hit it only once."[188] He believes that a surface ship is a constant target in the littoral and always has to operate at a higher state of readiness than the defending force. Over time, this heightened state of readiness causes fatigue which reduces the effectiveness of the commander and crew. The defense has the advantage because it can fire numerous missiles and only has to attain a single hit to make a "mission" kill on most modern warships. The attacking force must defeat every inbound missile or it will lose the ability to conduct offensive operations, its only reason for being in the littoral.

Not only is the defense stronger in the littoral, but according to Ya'ari, the US Navy will be inferior in numbers to the opposing force in the littoral. This inferiority will be asymmetrical. The US Navy will have a larger number of sophisticated warships but the opposing force will have a larger number of means to destroy them. The opposing force can deploy a large number, if not hundreds, of mines; aircraft; submarines; fast attack craft; and land, sea, air, and subsurface launched anti-ship missiles. A hit from any of these weapons systems is usually enough render a large sophisticated warship incapable of carrying out its mission.

Børrensen agrees that the defense is stronger in the littoral:

> The presence of shore batteries and shore based fighter aircraft changes the relationship between attack and defense that applied to naval battles on the open ocean. In coastal waters, the defense is a relatively stronger form of combat than it is on the open ocean.[189]

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[188]Ya'ari. 11.

[189]Børrensen, Jacob. "The Seapower of the Coastal State." Journal of Strategic Studies

(continued...)

He classifies navies into two broad classes: "bluewater" and "coastal" navies.

Bluewater navies conduct forward presence missions in peacetime and have the ability to

achieve sea control and project offensive power far from their shores during war. Coastal

navies do not. Their peacetime missions are to secure their nation's sovereign rights under

the Law of the Sea Treaty. Their wartime mission is to prevent invasion from the sea.

Børrensen believes that the "...comparative advantage of the Coastal Navy to the Bluewater

Navy" is the "...ability to navigate and operate in waters, and under conditions where the

enemy may not."[190] A coastal navy, according to Børrensen, is not naturally superior in

numbers but can be because:

> The Coastal Navy operates, by definition, relatively close to the base
> at all times...The Coastal Navies exploit this advantage by investing relatively
> less in the action radius of its ships, and in on-board amounts of ammunition
> and stores.[191]

This allows a nation with a coastal navy to invest more in numbers of craft. They can have

larger numbers of "less capable" platforms which a bluewater navy would not possess, but

which are sufficient for its missions.

The US Navy's choice of maneuver warfare is consistent with two of the three

historical reasons why nations have opted for maneuver warfare. The Navy is attempting to

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[189] (...continued)
  17, no. 1. (March 1994) 150.

  [190]Børrensen. 167.

  [191]Børrensen. 151.

overcome the superiority of the defense in the littoral and its asymmetrical inferiority in numbers. One promise of maneuver warfare advocates is that an armed force practicing maneuver warfare can overcome the superiority of the defense and the inferiority of numbers quickly, decisively, and with less casualties.

Related to this promise are is another reason why the choice of maneuver warfare is logical for US Naval Forces: navies are expensive and take a long time to build, equip, train, and operate:

> Another constant of maritime warfare is that navies are difficult replace. For this reason ships of the line did not engage forts with the same number of guns, battleships did not venture into minable waters, and aircraft carriers did not attack airfields that based similar numbers of aircraft. Ships did attempt such actions if they had preponderant force in the sea-shore battle and if they had sea control. The Gallipoli operations in the spring of 1915 illustrate both the prerequisite preponderance of force and the hazards of engaging shore batteries in minable waters. Three French and British battleships were sunk and a British battle cruiser was damaged, and the fleet's attempt to penetrate the Dardenelles was called off on the very brink of success.[192]

The US Navy presumes it will have sea control from its strategic base to the littoral. It does not presume it will control the littoral:

> Mastery of the littoral should not be presumed. It does not derive directly from command of the high seas. It is an objective which requires our focused skills and resources.[193]

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[192]Hughes. 182.

[193]"...From The Sea." 7.

Both Børrensen and Ya'ari believe that the present US Navy does not possess the resources to have the "prerequisite preponderance of force" to operate successfully in the littoral. It needs the force-multiplying effect offered by maneuver warfare to successfully carry out its new strategic focus.

The US Navy's choice of maneuver warfare is logical and consistent with historical reasons why other nations chose that style of warfare. However, maneuver warfare was developed by land warfare practitioners and it remains to be seen if its essential elements are transferable across warfare media. The remainder of the chapter will examine this question. The Boyd Cycle will be examined first to see if it can be shown to exist in naval warfare. Next the relevance of the maneuver warfare theory view of command and control, the battlefield, and the other essential elements will be examined.

C.   ESSENTIAL ELEMENTS OF MODERN MANEUVER WARFARE THEORY AND NAVAL WARFARE

1.   The Boyd Cycle

Maneuver warfare theorists believe that Boyd's theory of combat commander decision-making is correct and universal. Yet the transferability of Boyd's theory, based on the experience of F-86 pilots in the Korean War, poses a number of problems. It was based on a the interaction unitary actors at the tactical level, ie., the pilots of the MiG and the F-86, yet it is considered by maneuver warfare adherents to be the model for all warfare. Boyd assumed the pilots were always be able to correctly observe the situation, orient themselves, decide what action to take, and implement the action. The process continued until one side was defeated. According to the maneuver theorists, victory is due *only* to moving faster

through the cycle than the enemy. Each actor makes the "correct" decision for the situation he observes. The loser makes his "correct" decision for a situation that is no longer valid.

By virtue of simultaneously being the intelligence, command and control, and combat force, the unitary actor involved in single aerial combat has unique advantages over commanders of other types of combat units. This tempo-based model of combat command decision making which later became the basis of a warfare style reduces the importance of other elements of the process.

Still, the theory has merit. All combat commanders can be shown to go through the OODA loop, even if they do not consciously use the model or terms. The most troubling aspect of maneuver warfare theory is the conclusion drawn about the central importance of time. Moving faster than the opponent through the decision cycle is not the *only* way to victory. For example, if one side removed an opponent's reconnaissance force, the opponent would not be able to accurately observe the situation. Following the Boyd Cycle, he would not be able to adequately orient himself, decide on a course of action, and implement the action. Similarly, if one side removed another's ability to transmit orders, then the correct observation and orientation become meaningless because they cannot be accomplished. These actions also could lead to victory.

All of maneuver warfare theory is not wrong. It still can be based on the Boyd Cycle and the belief that victory comes largely from non-physical causes. Only the method of exploiting the enemy's Boyd Cycle can be greatly expanded. Relative time difference in the Boyd Cycle is not the only method of gaining victory. Victory can result from moving

faster through the cycle, but can also ensue from the destruction of one its critical nodes or disruption of the transition through the nodes.

The Boyd Cycle can be shown to exist in naval warfare. Hughes' dictum "fire effectively first" can be rephrased in maneuver warfare terms: fire on an enemy first because it changes the situation he is oriented to, making his decision and action inappropriate. His observation of and orientation to the situation changes from attempting to locate, track, and engage the enemy force to countering the incoming threat. Similarly, the importance Hughes places on "counter-scouting"[194] is a means to disrupt the enemy's Boyd Cycle by removing his ability to observe.

Naval Doctrine Publication 6, "Naval Command and Control" describes the Boyd Cycle as the decision and execution cycle of all warfare. Unfortunately, the conclusion Naval Doctrine Command draws is also of the singular importance of establishing greater speed through consecutive Boyd Cycle's than the enemy. It states, *"The essential lesson of the decision and execution cycle is the absolute importance of generating tempo* [emphasis in original]."[195] Doctrine Command does say that "...because orientation is largely based on information received from observation of the battle space, we can influence our adversary's orientation and thus increase his sense of disorder - by disrupting his ability to observe the battle space."[196] However, this is done only to "increase the differential in our relative

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[194]Hughes. Fleet Tactics. 169-170.

[195]"Naval Command and Control." 60.

[196]"Naval Command and Control." 61.

tempos"[197] and this is not a sufficient condition alone to create victory. The Boyd Cycle

exists in naval warfare, but the Boyd Cycle-based definition of maneuver warfare must be

expanded to include other methods than superior cycle tempo to achieve victory.

2.   Command and Control

Decentralized command and control is seen by Naval Doctrine Command as the only

way to ensure the rapid movement through the Boyd Cycle in naval combat. This belief and

the methods adapted are the same as in ground combat: mission orders based on the

commander's intent. Of all the essential elements of maneuver warfare on land,

decentralized command and control through mission type orders is probably the most readily

transferable to naval warfare. Decentralized command and control has historical basis in the

naval services due to the traditional limitations on communications systems. Naval Doctrine

Command states:

> Because naval forces have traditionally operated independently at
> great distances from U.S. based support, command of naval operations has
> been- by necessity -decentralized. Before the advent of radio
> communications, a naval commander was relatively autonomous, unable to
> receive direction from ashore or to exert control over any other ships or forces
> beyond his own line of sight.[198]

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[197]"Naval Command and Control." 62.

[198]"Naval Command and Control." 9.

Naval Doctrine Command is not alone in this belief. The phrase above echoes what Royal Navy Admiral of the Fleet Sir Henry Leach said in the forward to <u>Naval Command and Control</u>:

> Two hundred years ago if a government wished to carry out an operation against another power it picked the Force Commander, gave him the instructions and the necessary backing to assemble and equip his Force, and the rest was up to him. Long months later a corvette might bring home a dispatch indicating the outcome of the operation.[199]

Technology has greatly reduced the problem of communications:

> In the early 1970's, the Navy was dependent upon 100 words per minute teletype, high (HF) radio and speed key communications at 30 words per minute ...[and]...was satisfied if HF communications support could be maintained at 90 percent effectiveness. Today - primarily because of satellite communications - nothing less than 100 percent effectiveness with no garble and high data rates are the norm.[200]

Although new technology allows more centralized control of naval forces, the need for decentralized command and control has not diminished. In the littoral environment it has increased for two reasons. First, a naval force operating in the littoral will, by definition, be operating much closer to shore. Distance in the battle space directly translates into reaction time[201]. The less distance from the threat, the less reaction time. Less reaction time forces

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[199]Pakenham, W.T.T. <u>Naval Command and Control</u>. (London: Brassey's Defense Publishers, 1989) vii.

[200]Nagler, Gordon R. ed. <u>Naval Tactical Command and Control</u>. (Washington, DC: AFCEA International Press, 1985). 1.

[201]Hughes. <u>Fleet Tactics</u>. 168.

commanders to allow subordinates more independent actions. Compounding the problem of shortened reaction times, is the multi-directional and multi-modal nature of the threat in the littoral. A force in the littoral will have less chance to predict where an enemy attack may come from than on the open ocean. The attack will come with more surprise, further limiting reaction time. This situation also requires mission orders based on the commanders intent.

The commander's intent is also a historical part of naval operations arising from poor communications, although the modern term was not used. The Naval Doctrine Command is correct when it states:

> These characteristics of naval operations demanded that a senior commander state his intention clearly, to ensure that his ships' captains and landing force commanders operated according to the larger plan. Armed with an understanding of their senior's intent, the subordinate commanders were expected to conduct a wide range of operations on their own initiative. This style of command has been an enduring characteristic of naval operations and continues to distinguish the way naval commanders exercise command and control today.[202]

John Horsfield studied combat leadership in the Royal Navy from the period of the Napoleonic Wars until the end World War Two. He says that commanders could not give detailed instructions and instead had to state what they wanted accomplished. For example, "Admiralty instructions, because of the remoteness of distance and the time lag in receiving them, were often merely essays in speculation as far as the immediate situation was

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[202]"Naval Command and Control." 6.

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concerned."[203] Horsfield believes a major reason for Nelson's repeated successes was because he ensured his subordinate commanders fully understood his intentions:

> Nelson had explained fully to his subordinates what his schemes and intentions were, and he trusted them to do their best to carry them out ... Nelson before each of his battles assembled his captains, often at a dinner gathering, to ensure that all were one with his ideas.[204]

Horsfield gives an example of correspondence from a Captain Brey, who attended such a gathering before the Battle of the Nile:

> Everyone of the captains of his Squadron was most thoroughly acquainted; and upon surveying the situation of the Enemy they could ascertain with precision what were the ideas and the intentions of their commander without the aid of any further instructions.[205]

Nelson became a traditional model of leadership for the Royal Navy. The US Navy was patterned after the Royal Navy and Nelson became an example for that navy too. His reliance on telling his subordinates his intent and then allowing them to act became a tradition in the US Navy.

The choice of maneuver warfare for naval forces operating in the littoral is logical. The definition of maneuver warfare as defeating the enemy through destruction of his commander's decision cycle is also relevant to naval warfare, especially in the littoral, even if maneuver warfare's view of victory only through moving more rapidly through the

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[203]Horsfield, John. The Art of Leadership in War: The Royal Navy From the Age of Nelson to the End of World War II. (Westport, CT: Greenwood Press, 1980) 17.

[204]Horsfield 69.

[205]Horsfield 69.

decision cycle is too limited. The command and control system of mission orders based on the commanders intent, which maneuver theorists believe is the only way to successfully practice maneuver warfare, is not only the historical (though not called by the same terms in history) method of naval command and control but also is relevant and vital to success in littoral warfare

3.   Focus of the Effort

It is difficult to see the relevance, however, of the second essential element of the maneuver warfare command and control system. The focus of the effort has no comparison in naval history. The nearest comparison is the concept of the "capital ship." The focus of the effort on land is where the commander believes he will achieve a decision. According to maneuver theory, it is usually expressed as a unit. All other units support the focus of the effort. At first glance, it appears the concept of capital ship serves this role in naval battle. The capital ship was the warship that was supreme at sea. In other words, it was the ship with which naval commanders believed they would achieve decision. Other platforms scouted or provided security for the capital ship, which was to engage the enemy's capital ships. In maneuver warfare terms, units not designated the focus of effort by the commanding officer supported the focus of the effort.

Viewing capital ships in this light is incorrect. The difference between the historical development of fleets and fleet operations organized around capital ships and the focus of the effort is that the latter implies a choice. The commander observes the situation, orients himself to the situation, decides what his focus of effort will be, and then acts with it. The

traditional naval commander had no choice but to achieve decision with his line of battle

consisting of capital ships. The focus of the effort in littoral warfare may be land or sea.

Corbett believed the concept of capital ships developed from the fact that "...in almost

all eras of naval warfare, fighting ships have exhibited a tendency to differentiate into groups

in accordance with the primary function each class was designed to serve."[206] He states the

practice became standardized after the Anglo-Dutch Wars. Ships were grouped into three

classes: ships capable of service in the line of battle, cruisers, and others. Corbett called the

groups battleships, cruisers, and flotilla ships.[207] Russian Admiral Makarov agreed with the

division of naval forces into three groups according to function calling the groups

"...squadron ironclads...frigates,and...other smaller vessels."[208]

Corbett, Makarov, and another well known naval writer, Colomb, used different

terms for capital ships, but all agree that a commander theoretically achieved decision with

them. Corbett argued about the proper role of cruisers but did not argue with the supreme

role of the battleship or with the belief that only battleships could fight battleships. "It is

perfectly true that the control [of communications, upon which Corbett believes control of

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[206]Corbett, Julian S. Some Principles of Maritime Strategy. (Annapolis, MD: Naval
Institute Press, 1988). 107.

[207]Corbett 112.

[208]Makarov, S.O. Discussion of Questions in Naval Tactics. (Annapolis, MD: Naval
Institute Press, 1990) 243.

the sea rests on] depends ultimately on the battle-fleet if control is disputed by a hostile

battle-fleet, as it usually is."[209] Makarov believed:

> ...size determines strength. The battle ship has been at all times more
> powerful than the frigate, and therefore there was no occasion to place the
> frigate in the center of the line so to weaken one portion thereof.[210]

This was also true for "...vessels of smaller dimensions, such as torpedo cruisers and torpedo

boats."[211] Colomb agreed with Corbett and Makarov stating:

> The establishment of the line-of-battle not only differentiated a
> powerful class of ships for taking part in the fighting formation, but ...it
> excluded the smaller classes of ships from taking part in the general
> action...We thus get a tendency towards such a differentiation of naval forces
> as would set apart a line of battle those ships specifically designed to fight in a
> line; that citadel as it were of naval power, the arrangement of naval force
> before which every other nature of naval power must bow, and which could
> not be overcome but by a greater quantity of like force.[212]

The differentiation of naval forces led to the status of the capital ship as "the citadel

of naval power." Like ships fought like ships. What Brodie called the race between

protection and penetration led to huge increase in the cost of capital ships lessening the

number which could be built.[213] These factors combined and led naval theorist to the belief

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[209]Corbett 113.

[210]Makarov 243.

[211]Makarov 243.

[212]Colomb 123-124.

[213]Brodie, Bernard. Seapower in the Machine Age. (Princeton, NJ: Princeton University
Press, 1943) 238.

that it was necessary to concentrate the fleet. Concentration also limited the choice to determine a focus of effort.

The focus of effort is relevant to a navy concentrating on littoral warfare. The goal of the new strategic focus of the US Navy is to directly intervene in events on land. Its main targets and opposition usually will be land based forces. The US Navy does not intend to go abroad into the littoral to destroy coastal navies.

Uhlig's stated the historical "goods and services" provided by a navy were to allow friendly shipping to flow, prevent enemy shipping from flowing, and land troops as necessary. "The obvious, the best and the shortest way to obtain such command has always been to seek out the enemy's main forces and destroy them."[214]

Destruction of a littoral nation's fleet will not have the same effect with the US Navy's present strategic focus. The Navy, operating jointly with other US or coalition forces, must destroy or render ineffective a littoral nation's entire defense system, of which its fleet and even a well-integrated coastal system is only a part, to have a similar effect that destruction of the enemy fleet provided under its present concept of operations. Destruction of the fleet will only provide security to allow the force to achieve the commander's intent. Therefore, it will be vital to designate a focus of effort in order to maintain security, concentration, and unity of effort. The goal will not be to sink every missile boat or submarine, or to clear every mine, but to carry out some task against a land objective. If the

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[214]Rosinski, Herbert. "Command of the Sea." The Development of Naval Thought. Simpson III, B. Mitchell ed. (Newport, RI: Naval War College Press, 1977) 5.

US Navy will be outnumbered against littoral nations, it will need to focus on achieving the commander's intent. The traditional notion of destroying the enemy "fleet" will divert strength away from the objective. A modified concept of surfaces and gaps is necessary.

4.   Surfaces and Gaps

Surfaces and gaps are a concept used in land maneuver warfare because, according to Lind, it is how a ground commander sees the battlefield. It takes into account terrain and the enemy. Surfaces are enemy strengths or impassable terrain. Gaps are enemy weaknesses or traversable terrain. This concept doesn't directly apply to traditional concepts of war at sea or warfare in the littoral. In traditional war at sea, the terrain mattered less than it did on land warfare because it equally effected both sides.

In littoral warfare, if only surface ships are considered, terrain is very important. Larger ocean going ships will be denied operational depth due to draft restrictions, enemy mines, and missile batteries. However, the US Navy doesn't plan to fight with surface ships alone. Effective use of aircraft, countermining, and cruise missiles can reduce the effect of terrain.

The concept of surfaces and gaps is useful if terrain is removed as an important element and the enemy is focused on. Strengths and weaknesses are a much better way of looking at the problem. For example. Ya'ari and Børrensen list a number of strengths of a coastal navy and weaknesses of bluewater navy operating in the littoral. Ya'ari lists the strengths as ability to blend in with the terrain and neutral shipping, lack of constraining

drafts, and greater numbers of crafts available.[215]   Børrensen agrees with Ya'ari and adds

the availability of shore based air cover and shore batteries.[216] Ya'ari, basing his theory on

the Israeli Navy's combat experiences, only talks about surface ships and not a combined

force like the US Navy. Børrensen is more useful because he gives strengths and

weaknesses of both types of maritime forces.

According to Ya'ari, the bluewater navy will send its big ships in to the littoral to be

defeated by superior surveillance, combined arms, and clever use of terrain by the littoral

state. His goal is to suggest that today's surface ships are ill-designed to fight in the littoral

and suggests the adoption of a littoral warfare doctrine for submarines. He explicitly

dismisses the ability of using new tactics or warfare styles to overcome problems faced by

bluewater navies in the littoral. Ya'ari also dismisses synergism, which he defines as the

combined effects of several types of platforms, as being able to solve the bluewater navy's

problem in the littoral environment.[217] In other words, maneuver warfare alone is not a

sufficient to solve the problems the US Navy will face in the littoral. Ya'ari believes littoral

warfare is fundamentally a technological problem primarily requiring a technological

solution.

There is a lot of truth in Ya'ari's belief and the technological element of the littoral

arena is not ignored by the US Navy. Under the "Implementation" section of "...From The

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[215]Ya'ari 9-12.

[216]Børrensen 150.

[217]Ya'ari 8-9.

Sea," the Navy planned to "...examine functions and capabilities, seeking to eliminate areas of redundancy and enhance areas considered deficient in light of the shift in strategy."[218] The main technological deficiency, noted by Owens, was evident in Desert Storm:

> ...weapons, systems, and techniques that we had honed for open-ocean engagements...were all ruled out either by the context of the battle or the complexities of the sea-land interface in the littoral.[219]

The need to "...procure equipment systems to support ["...From The Sea"] and remain ahead of the global technological revolution in military systems,"[220] was listed as an immediate task in that document. However, research and development and procurement of new weapons systems designed for littoral warfare takes time. The US Navy wants to remain engaged forward in the mean time. Maneuver warfare is a valid solution to the littoral warfare problem until the new systems reach the operating forces. It will remain useful afterwards because of the US Navy's inferiority in numbers and the superiority of the defense in the littoral arena.

Modifying and applying its essential element of strengths and weaknesses is a vital part. The littoral nation has exploitable weaknesses. What both Børrensen and Ya'ari list as strengths are only strengths if a bluewater navy attempts to fight a coastal navy in the same manner it would fight a bluewater force. Also, most of the strengths are tactical strengths, maneuver warfare focuses on the operational level. A coastal navy's main operational level

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[218]"...From the Sea" 12.

[219]Owens 4.

[220]"...From the Sea" 15.

exploitable weaknesses are circumscribed range, payload, detection capabilities, anti-air defenses, and electronic countermeasures of its units. The US Navy conducting a *campaign* against a littoral nation has advantages if it applies a maneuver warfare approach.

First, it has vast operational depth. The open ocean provides a secure base for the US Navy beyond the enemy's capability to attack or effectively locate it. Its forces can operate in areas which the coastal nation cannot because of fuel or sea state restrictions. In other words, while a bluewater force is canalized *in* the littoral, the coastal navy is canalized *to* the littoral. The US Navy will have the operational initiative. While the defense is stronger in the littoral as it is on land, the offensive is decisive in the littoral as well.

Second, Ya'ari is wrong on synergism. For example, aviation can have a major effect in the littoral. He is correct to point out that a patrol boat can operate in shallow waters with little or no operational restrictions compared to an ocean going vessel. It is also true that it possesses greater tactical speed. However, an aircraft is completely unaffected by restricted waters and its speed is far greater than any patrol craft. Because of weight restrictions, the patrol boat will not have adequate air defenses or electronic counter measures. The maneuver warfare solution is to send an aircraft, a strength, against an enemy weakness, an patrol boat.

Thirdly, the littoral nation is very reliant on shore-based support for intelligence, air support, and logistics. According to Ya'ari, a surface ship is little more than a large, nearly immobile target in the littoral. A littoral nation's fixed land-based communications, intelligence, and logistics structure are likewise large immobile targets. The dependence on

the shore structure is the littoral enemy's critical vulnerability and a way to directly destroy the observation and orientation node of his Boyd Cycle or disrupt the transition between his decision and action nodes.

The concept of reconnaissance pull has been the historical method of reconnaissance for war at sea. The Navy, which has by necessity focused on the enemy for war at sea, always followed a reconnaissance system more closely related to the land combat concept of the reconnaissance pull rather than the command push. The enemy had to be located first and then attacked without keeping forces in reserve. Locating the enemy could be a major effort. Once found, the enemy was attacked. The command push at sea, in which a commander decides where he wants to attack and then sends out his reconnaissance, made little sense.

Technology plus the US Navy's focus on influencing land events and targeting ground forces permits it to adopt the command push method of reconnaissance. This form of reconnaissance is anathema to ground warfare advocates because it does not permit the exploitation of gaps. With a reconnaissance style more closely like the reconnaissance pull method, the Navy presently has the proper reconnaissance mind set for maneuver warfare. It should not change.

5. The Role of Firepower, Combined Arms, and Fire Support

Firepower, combined arms, and fire support are viewed very differently by maneuver warfare advocates and traditional naval theorists. Effective firepower was the most important aspect of naval battles. Early location of the enemy allowing one side to attack

effectively first was the key to success. Combined arms, the use of two or more types of weapons to achieve effects greater than their use singly, was not attempted. Combined arms effects have been achieved accidentally. The US Navy torpedo squadron attacks on the Japanese in the Battle of Midway brought down the Japanese combat air patrol from to flight levels from which they could not effectively deal with dive bombers. It was not possible or realistic to develop doctrinal principles based on this chance success.

The US Navy, the employment of different types of weapons has usually been sequential and based on range. Defense in depth of carrier battle groups exemplified this. Enemy bombers or ships with cruise missiles would be attacked by aircraft first. "Leakers" would next be attacked by surface vessels anti-air or anti-ship missiles. Next, remaining enemy forces would be attacked by ships' guns and finally by point defense systems. Attacks on enemy forces would also usually be made by submarines or aircraft first, then ship launched cruise missiles, and then guns.

Attempts to combine weapons to magnify effects were not made. The need to fire effectively first combined with the range and destructiveness of cruise missiles reduced the value of combined arms. In the littoral environment, this is no longer true.

A force operating from the sea in the littoral, as well as it opponent, will operate within simultaneous effective ranges of many different weapons systems. Due to the overlapping ranges of weapons systems in the littoral, many more opportunities to make the combined effect of different types of weapons systems greater than the sum of their separate parts will exist. The maneuver warfare view of firepower and combined arms can become

useful to maneuver warfare in the littoral. This is one of the least understood and developed of the essential elements in the naval interpretation of maneuver warfare.

6. Counter Attacks and the Reserve

Other essential elements of maneuver warfare which have no major historical basis in war at sea are counter attacks and the use of reserves. The focus on the destruction of the enemy fleet in traditional US naval thought led to an operational strategy designed to bring about a fleet engagement. In that engagement, the first effective attack usually determined the victor. Forces not engaged were forces wasted.[221] Counter attacks were also less valuable than attacking effectively first. The changing strategic focus of the US Navy brings a new importance to the use of counter attacks and the role of reserves.

The objective of campaigns will not be the destruction of a littoral nation's naval forces or naval-oriented defense system. Destruction of its naval oriented defense systems may of course be necessary, but only to the extent that it enables the commanders intent to be accomplished. The commander's intent, according to the US Navy's new strategic focus, will be based on direct intervention on the ground. Destruction of the enemy fleet is relegated to a security mission and will probably only rarely, if ever, be assigned the focus of the effort. The focus of effort will be directed towards some objective on land that will directly cause the commander's intent to be realized. This move from war on the high seas

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[221]Hughes. Fleet Tactics. 197.

to the littoral makes the maneuver warfare concept of the reserves and the use of counter attacks relevant to the Navy's new strategic concept.

7. Intangibles

The role of intangibles is directly transferable from maneuver warfare on land to maneuver warfare at sea. The preeminent role of intangibles in victory is one of the two definitional pillars of the modern concept of maneuver warfare. Adopting maneuver warfare at sea without the same role of intangibles is impossible.

The limited number of discreet fighting units used in naval combat magnifies the effect of intangibles. Subunits, such as a department on a ship, are incapable of independent actions outside of their parent unit. Of all operational level military forces, a naval force most closely approaches Boyd's view of unitary command and control.

D. CHAPTER CONCLUSION

Naval Doctrine Command's belief that maneuver warfare is the war fighting style which will best supports the Navy's new strategic focus is a logical solution to the problems it will face in the littoral. It is a choice consistent with two of the three reasons why nations have historically chosen this style of fighting. Maneuver warfare's essential elements are relevant to warfare at sea with little change. The term "at sea" must not be too narrowly defined to mean the traditional view of naval combat between two bluewater navies. The term needs to be thought of as "based at sea". In this sense, maneuver warfare at sea is more accurately described as a style of warfare for sea-based forces attempting to directly intervene on the land against ground-based force.

IV. CONCLUSION

A.   GENERAL CONCLUSION

The modern concept of maneuver warfare was developed by William Lind and the military reformers. It is based on the belief that victory in warfare comes predominantly from non-physical causes. Maneuver theory specifically states that the only way to achieve this sort of victory is to operate at a faster Boyd Cycle tempo than the enemy. Maneuver warfare was seen as valid solution to the problems facing the US Army and Marine Corps in the 1980's.

Naval Doctrine Command "...was established to provide doctrinal foundation for naval forces."[222] The Deputy Chief of Naval Operations for Resources, Program Requirements and Assessments says in Force 2001, "...it serves as the primary authority for the development, dissemination, and evaluation of naval doctrine...the explicit statement of *how we fight* [emphasis in original]."[223] Doctrine Command called maneuver warfare the preferred method of fighting for the naval services in Naval Warfare. It did so without addressing whether the concept, which was developed out of land warfare experience to solve specific problems of land warfare, was relevant to the US Navy's new strategic focus.

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[222]Force 2001: A Program Guide to the U.S. Navy, 1994 Edition. (Washington, DC: Deputy Chief of Naval Operations, Resources, Program Requirements and Assessments (N8), 1994) 19.

[223]Force 2001 19.

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The US Army and Marine Corps turned to maneuver warfare in a period

characterized by certainty in the security environment to counter a long-standing, known

threat. The US Navy, on the other hand, turned to the same solution to counter unknown

threats. Maneuver warfare is relevant and vital to the new strategic focus of direct

intervention from the sea and the targeting land-based forces. Instituting new warfare

doctrine is the only method available in the short-term to allow the Navy to be effective in

the littoral with weapon systems designed for traditional open ocean warfare. It is also a

long-term solution because of the operational conditions of the littoral arena.

B.   MANEUVER WARFARE AND "THE NAVY AFTER NEXT"

Maneuver warfare is relevant for the present security environment in which the US

Navy will operate. Paul Bracken wrote "The Military After Next" in 1993 and stated that the

article was not intended to provide guidance on the shape of the future security environment.

Instead, the article was offered to serve as:

> A powerful technique by which to judge whether current plans and
> debates are far enough ahead of today's problems, and whether U.S. armed
> forces will incorporate innovations in operations, technology, new
> architecture, and radically different doctrines in ways that make the
> innovations a real part of the forces designed.[224]

His technique divided the military into "the next military" and "the military after

next." The next military is one that is based on today's security environment and operational

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[224]Bracken, Paul. "The Military After Next." The Washington Quarterly 16, no 4.
(1993) 157-158

needs and is an evolutionary improvement over the present military. The military "after next" is defined as one which will begin to be fielded twenty years from now. It will be based on a different security environment and advanced technology, and may be radically different in size, organization, and orientation than today's or the next military.[225]

Bracken also classified threats into three broad groups. "A" competitors are nation-state peer competitors. The next classification are "B" competitors. These are nation-states with military capabilities similar to the present armed forces of Iran, Iraq, or North Korea. The last classification are the underdeveloped military nations or non-state threats, labeled group "C."[226] He believes that planning for the next military is based on defeating group "B" nations. The main problem in US strategic thought, according to Bracken, is that the debate over the military after next is not about how to defeat a group "A" challenger that may arise over the next two decades, but whether the next military should be primarily focused on defeating group "B" nations or dealing with the problems associated with group "C" nations.[227]

Bracken does not differentiate between any of the services. The Navy's new strategic focus and adoption of maneuver warfare is useful for "the next navy" and "the navy after next." Meeting part of his description of the next military, the Navy's new strategic concept and its attempt to adapt maneuver warfare is the result of the present security environment.

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[225]Bracken 157-163.

[226]Bracken 163-169.

[227]Bracken 165-169.

However, its concept does not suffer from "strategic tunnel vision"[228] for two reasons. First, Bracken's fear is that the United States short term view will cause it to be a victim of the revolution in military affairs. His fear is unfounded where the Navy is concerned. He states:

> In the military sphere it is likely that the nature of warfare brought on by the enabling power of new technologies combined with fundamental changes in doctrine, employment concepts, and force structures will later the character of warfare to a degree witnessed only in periods of military revolution.[229]

A primary cause of the Navy adopting its new strategic concept was "the enabling power of technology" which has blurred the boundaries between the warfare media. Also, "...From The Sea" was a fundamental change in the Navy's employment concept and maneuver warfare at sea is an attempt to fundamentally change the Navy's war fighting doctrine. The character of naval warfare is changing to a revolutionary degree, far beyond a simple reaction to present security conditions and operational needs.

The second reason why Bracken's criticism does not apply is that the time it takes to design and build naval weapons systems is long and their expected service life is normally measured in decades. For example, the USS Midway (CV 41) was commissioned in 1943 and remained in active service until 1991. The US Navy can ill afford not to consider the military after next in its procurement choices.

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[228]Bracken 157.

[229]Bracken 161.

C.   CHAPTER CONCLUSION

The US Navy's move to adopt maneuver warfare for naval forces is a logical, long-term choice. Many of the essential elements of maneuver warfare such as the Boyd Cycle, mission orders based on the commander's intent, and the reconnaissance pull method are already present in the US Navy today, although the same terminology is not used. Other concepts such as focus of the effort, combined arms, counterattacks, and the reserve are relevant and vital to littoral warfare but need to be further developed and adopted.

The most important change the US Navy must make to maneuver warfare theory in its adoption, is to expand the view of how victory can be achieved. Destruction of one of the nodes of the Boyd Cycle or disruption of an enemy's transition through the cycle must also be seen as sufficient to result in victory. Presently, superior relative tempo through the cycle is seen as the only method of victory. Doctrine, "shared thinking" according to Naval Doctrine Command, will limit a commander's method to achieve victory.

The second change the US Navy must make to successfully institute maneuver warfare for sea-based forces is in its weapons systems development and procurement philosophy. Weapons system development should place emphasis on the integrated use of combined arms to enable commanders to identify and exploit surfaces and gaps. Importance must be placed on the synergistic effect of all weapons systems. Particular emphasis must be placed on weapons allowing the Navy to directly target and influence the land battle as part of a joint force.

Finally, Naval Doctrine Command was correct to advocate maneuver warfare as the warfare style best suited for the US Navy's new strategic concept. However, if it is to successfully carry out its mission of turning the strategic concept articulated in "...From The Sea" to doctrinal reality, it must do better at convincing the operating forces that maneuver warfare is the proper choice for warfare in the littoral. Doctrine Command must better educate war fighters on maneuver warfare. This is necessary to allow the concept to be exercised, tested, and practically developed, transforming it from doctrinal theory to operational reality.

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